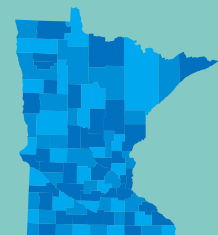


March 2024

Watershed Achievements Report Fiscal Year 2023

A description of the projects funded by federal Clean Water Act Section 319 grants and Clean Water Partnership Loans.



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Cover crop planting from the FFY 2016 Section
319 Minnesota River and Sand Creek
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Executive summary

The Minnesota Pollution Control Agency (MPCA) has two funding sources for local governments for implementation of best management practices (BMPs) to restore and protect Minnesota's waters. They are the federal Clean Water Act Section 319 (Section 319) funds and the Clean Water Partnership (CWP) funds. The governing statute for the CWP is [Minn. Stat. 103F.700](#) and the rules governing the disbursement are in [Minn. R. 7076](#). Further prioritization and Minnesota's goals are described in the [Nonpoint Source Management Program Plan](#) (NSPMP).

The projects reported in the fiscal year (FY) 2023 Watershed Achievement Report were awarded between 2017 and 2021. The state FY 2023 began July 1, 2022, and ended June 30, 2023. This report will describe the projects completed, newly awarded, and underway and funded with Section 319 and CWP loans by river basin. Each of the projects will contribute to the reduction of pollution loading in an effort to improve Minnesota's water quality. Section 319 projects awarded in federal fiscal year (FFY) 2023 (the FFY 2023 began October 1, 2022, and ended September 30, 2023) are not included due to the timing of this report.

The estimated reductions associated with Section 319 and CWP loan projects are summarized in Table 1 and are entered by grantees and borrowers into the eLINK system. It is important to note, no newly awarded projects or projects that are currently under way are included in this estimate. Some projects do not directly yield reductions but may include civic engagement or demonstration elements to help further the nonpoint source (NPS) work in Minnesota.

Table 1. Summary of estimated reductions achieved with Section 319 grant and CWP loan projects completed in FY 2023. (eLINK)

Basin	Total
Phosphorus (P) pounds/year (lbs/yr)	2,765
Total Suspended Solids (TSS) tons/year (t/yr)	17,022
Nitrogen (N) pounds/year (lbs/yr)	9,555
Soil loss (t/yr)	NA
BOD (lbs/yr)	3.01E+04
E. coli (cfu/yr)	1.85E+16

Introduction

Minnesota's water resources are treasured by its citizens for the beneficial uses they provide including recreation, drinking water, aquatic life, industrial and agricultural uses. With more than 10,000 lakes, 100,000 river and stream miles, and extensive groundwater systems, water is a major part of Minnesota's culture, economy, and natural ecosystems.

Two programs provide local governments with resources to restore and protect surface water, with a special focus on NPS pollution. The MPCA relies on the Section 319 program to provide funding for efforts to reduce nonpoint sources of pollution. The second source, the CWP loan program provided no interest loans to local units of government for BMPs, which reduce nonpoint source water pollution in local areas. The Watershed Achievements Report is an annual report on the efforts supported by these funding resources and the state's progress for reducing NPS pollution. This report describes the newly awarded, active, and final nonpoint source projects for statewide and watershed-based projects.

Clean Water Partnership and Section 319 Programs

The MPCA provides financial and technical assistance to local government and other water resource managers to address nonpoint-source water pollution through the state CWP and Section 319 programs.

The Section 319 grant program is a federally funded program to address nonpoint source (NPS) pollution. Until 2020, the projects were awarded on a project-by-project, competitive basis. The grant award gave local governments the ability to work over four-years to complete the project. Each grantee is required to provide a match of at least 40% of the total project cost using state or local funds. In addition to providing pass through grant dollars, the U.S. Environmental Protection Agency (EPA) provides Minnesota with an equal amount of program dollars which fund program activities to address NPS pollution. These funds pay for staff to monitor, research, and develop products such as total maximum daily loads (TMDL) and watershed restoration and protection strategies (WRAPS). Beginning in FFY 2022, the Section 319 grants will be awarded to the prioritized watersheds in each group by sole-source awarding process.

The Section 319 grant program began the transition to the Section 319 Small Watershed Program in 2017. The EPA requirements changed in 2014 to include a more focused and detailed approach. The MPCA approaches watershed planning on a hydrological unit code (HUC) 8 scale. This allows the local governments to target their own priorities and develop implementation plans specific to their locality. The EPA requirements are a formalized version of this narrowing and focusing that is being done on the local level. The EPA requires that these plans are formalized with very detailed plans called nine key element (NKE) plans, which are described fully in the [Handbook for Developing Watershed Plans to Restore and Protect our Waters](#). The Small Watersheds were prioritized for funding in FFY 2020.

The Clean Water Partnership program was originally a loan and grant program. In 2015, the Minnesota legislature stopped funding the grant program, but the loan program remained active. The CWP funds were loaned to local units of government (LGU) at 1.5% interest during fiscal year 2023. The LGUs can apply for funding at any point throughout the year and use the funding to implement projects, create a loan or grant program for their residents, purchase equipment or easements, or educate and engage the citizens in taking action to protect and improve water quality. The loan funds are initially available for a three-year implementation period, with an optional extension to a fourth year. The CWP Loan funds are then paid back over a 10-year period. At no point do the funds accrue interest. Matching the funds is optional for borrowers. Although many entities do provide match activities for the loans, such as administration of their programs and outreach, not all organizations choose to report matching funds. It is important to note that whether or not reported, some match and investment occurs with all program participants.

Section 319 Grant Program Small Watersheds Focus

The MPCA developed a [Section 319 Small Watersheds Focus Program](#) in partnership with local governments to support comprehensive nonpoint source implementation on small-scale watersheds. The EPA shifted their focus to highly detailed plans to meet water quality standards within 10 years. These plans meet the requirements of the [EPA Handbook for Developing Watershed Based Plans](#). These watershed-based plans called nine element (NKE) plans build upon existing local water plans and state reports. The plans are focused on a smaller geographical scale to facilitate the level of detail needed to meet the NKEs.

Small Watersheds program: The Clean Water Act Section 319 program shift to focus on small watersheds was done in order to prioritize and target specific areas of the state to increase the benefits of implementation and affect measurable differences in water quality.

Focus Watersheds: Watersheds are selected to participate in the Section 319 Small Watersheds Focus Program and receive priority funding from the Section 319 grant program. These watersheds will meet state and local priorities.

The MPCA passes through approximately \$2.8 million in Section 319 grants annually to local governments and organizations to implement BMPs and adopt strategies to mitigate NPS pollution. Funding for the selected Focus Watersheds will continue in subsequent years for implementation projects. The goal of the Small Watersheds Program is to achieve the water quality objectives in the selected watersheds.

Clean Water Partnership loan program

The [CWP loan program](#) helps restore water quality in lakes and streams across Minnesota. Administered by the MPCA, the zero-interest loans go to local partners and tribal nations for projects that reduce nonpoint source pollution from diffuse sources such as failing septic systems and cropland runoff.

Figure 1. Clean Water Partnership loans reducing water pollution, one project at a time.



Some examples:

- Improving on-site sewer systems in Mille Lacs County to reduce sources of bacteria
- Removing water softeners — which are sources of chloride pollution — in the city of Lakefield
- Reducing nitrogen risks to drinking water wells in Rock County

Flexible loan options

First tier loans are provided for local governments to build projects. Second tier loans allow local entities to make loans to landowners and other stakeholders.

The funds can be used for any non-point BMPs, including wellhead protection, inflow and infiltration (residential laterals), green infrastructure, SSTS upgrade/replacements, wetland or stream restorations, and many more!

Watershed Program Accomplishments – 2023

Clean water accountability reporting

Minnesota's Clean Water Legacy Act requires that MPCA report actions taken in Minnesota's watersheds to meet water-quality goals and milestones (Minn. Stat. 114D.26, subd. 2). This accountability reporting is required every two years, though updates to these reports will occur annually by July of each year. These reports can be found here: [Healthier watersheds: Tracking the actions taken](#)

The reports contain information regarding:

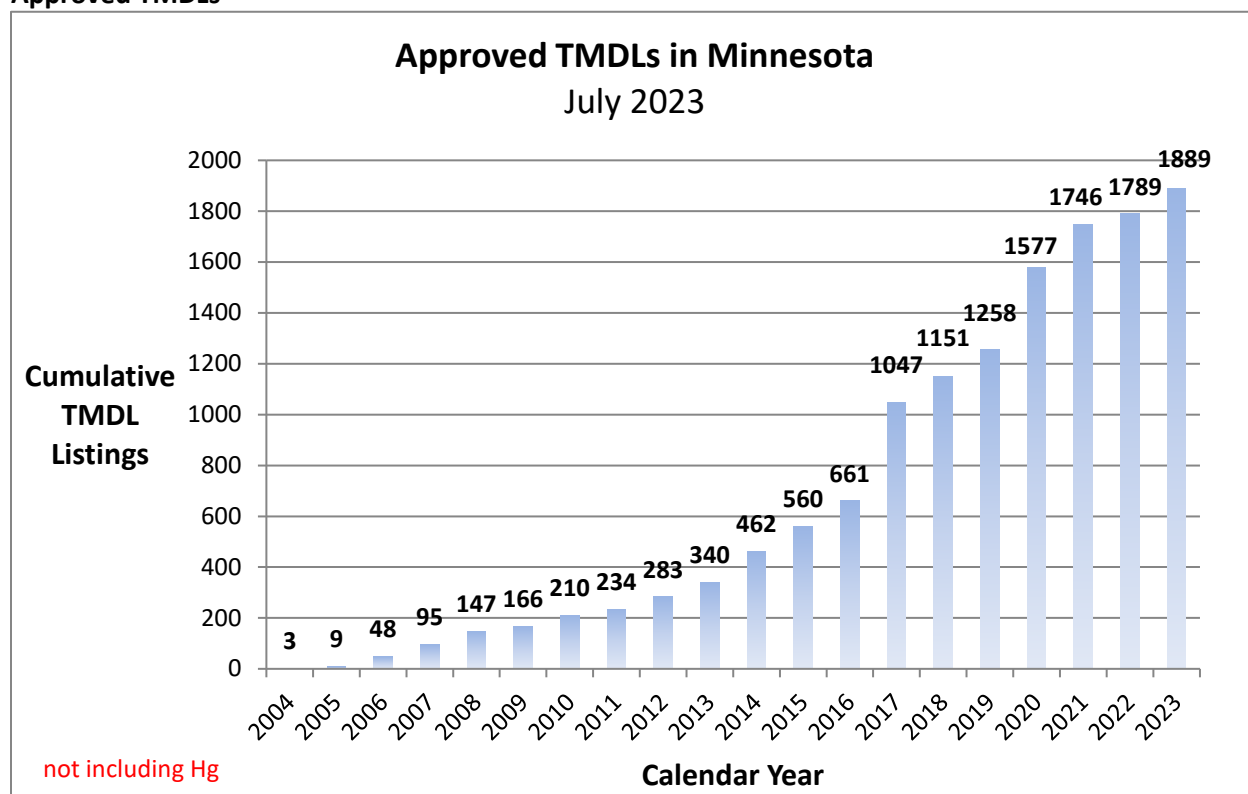
- WRAPS approval status
- TMDLs approved
- Wastewater treatment plant pollution reduction progress
- Nonpoint BMPs in all subwatersheds
- Funding (federal, state, local, point/nonpoint) by watershed

Minnesota's Watershed approach

All 80 cycle 1 watersheds in Minnesota have restoration and protection strategy have been approved, with cycle 2 projects underway. Strategy plans have been completed for all 80 watersheds. More information is on this web page [MPCA watershed approach](#).

Figure 2. Cumulative Approved TMDL listings in Minnesota for the years 2004-2023.

Approved TMDLs



Minnesota continues to make progress in completing Total Maximum Daily Load (TMDL) studies for impaired waters in the state as part of our watershed approach. Minnesota is meeting the priority goals for EPA’s Long-term Vision process. We are beginning discussions on TMDL priorities for EPA’s Vision 2.0 and meeting with our state and local partners for their input.

2024 Clean Water fund performance report

Minnesota agencies released their sixth collaborative [report](#) in February 2024 to help Minnesotans clarify connections between Clean Water funds invested, actions taken, and outcomes achieved. Measures in the report provide a snapshot of how Clean Water Fund dollars are being spent and what progress has been made. The measures are organized into four categories: investment, surface water quality, drinking water and groundwater protection, and social measures and external drivers. Each measure has detailed status ranking and trend information.

Protecting and restoring Minnesota’s waters for generations to come

Investing in clean water is money well spent. Minnesota voters clearly delivered this message when they overwhelmingly passed the Clean Water, Land and Legacy Amendment in 2008. The amendment provides 25 years of dedicated funding to strengthen and enhance Minnesota’s response to water resource challenges and to protect high-quality waters. The Clean Water Fund creates opportunities for Minnesota to take innovative and collaborative approaches to improve water quality statewide.

Between 2010 and 2023, Minnesota’s Clean Water Fund:

- Awarded more than 4,271 grants to protect and restore Minnesota’s water resources.

- Delisted 81 lakes and streams from Minnesota’s impaired waters list due to restoration activities.
- Led to many more lakes having improving water quality trends than declining trends and maintained the quality of unimpaired waters.
- Issued more than 2,253 loans to landowners to prevent nonpoint source water pollution or solve existing water quality problems.
- Secured more than 941 easements that will permanently protect approximately 31,164 acres along riparian corridors and within wellhead protection areas, of which 23,830 acres were supported by Clean Water Funds.
- Repaired 881 subsurface sewage treatment systems that posed an imminent threat to human health.
- Upgraded 52 municipal wastewater treatment facilities, which reduced phosphorus discharges by over 316,000 pounds per year.
- Developed plans for nearly 800 out of the approximately 970 community water systems in Minnesota to protect their drinking water sources and awarded approximately 1,300 grants supporting local source water protection actions.
- Engaged 84,000 visitors in the We Are Water MN exhibit at 30 sites statewide since 2016. Of those surveyed in 2022, 88% indicated an increased awareness of threats to our water resources.
- Incentivized the replacement and assessment of water-using devices with nearly 15,000 water-efficient alternatives through city and township programs, when implemented save an estimated 204 million gallons of water each year.
- Offered free nitrate testing to over 90,000 well owners in areas vulnerable to nitrate contamination and 32,000 of those well owners ultimately participated in the program.
- Certified nearly 1,000,000 acres of Minnesota farmland across more than 1,400 farms through the state’s Agricultural Water Quality Certification Program.
- Added pesticide water quality monitoring for approximately 140 additional pesticide compounds in vulnerable groundwater and surface water resources statewide.
- Cooperated with tribal governments on monitoring and assessment programs, strategy development for meeting water quality standards, detection of unregulated contaminants, and comprehensive planning.
- Supported statewide testing for PFAS in drinking water, which covered over 99% of Minnesotans that drink water from a community water system.

NPS pollutant reductions and best management practices

The healthier watersheds webpage ([Healthier watersheds: Tracking the actions taken | Minnesota Pollution Control Agency \(state.mn.us\)](https://www.healthierwatersheds.org/minnesota)) was developed to track the spending of Clean Water Funds in Minnesota. Not all of the information tracked has to do with NPS pollution; however, the WRAPS, TMDL status, and BMPs implemented by watershed are related to NPS work. Data for the BMPs is collected by self-reported reporting of implementation of those receiving NPS funds. This information is provided by various government agencies, including NRCS (EQIP, CSP, ACEP, WRP) and FSA (CRP) at the federal level,

and BWSR (easements and CWF grants), MDA (AgBMP, MAWQCP), and MPCA (Section 319, CWP) reporting state administered NPS programs.

Healthier watersheds

Progress toward approving WRAPS (Figure 3) can be tracked at [WRAPS Status Public | Tableau Public](#).

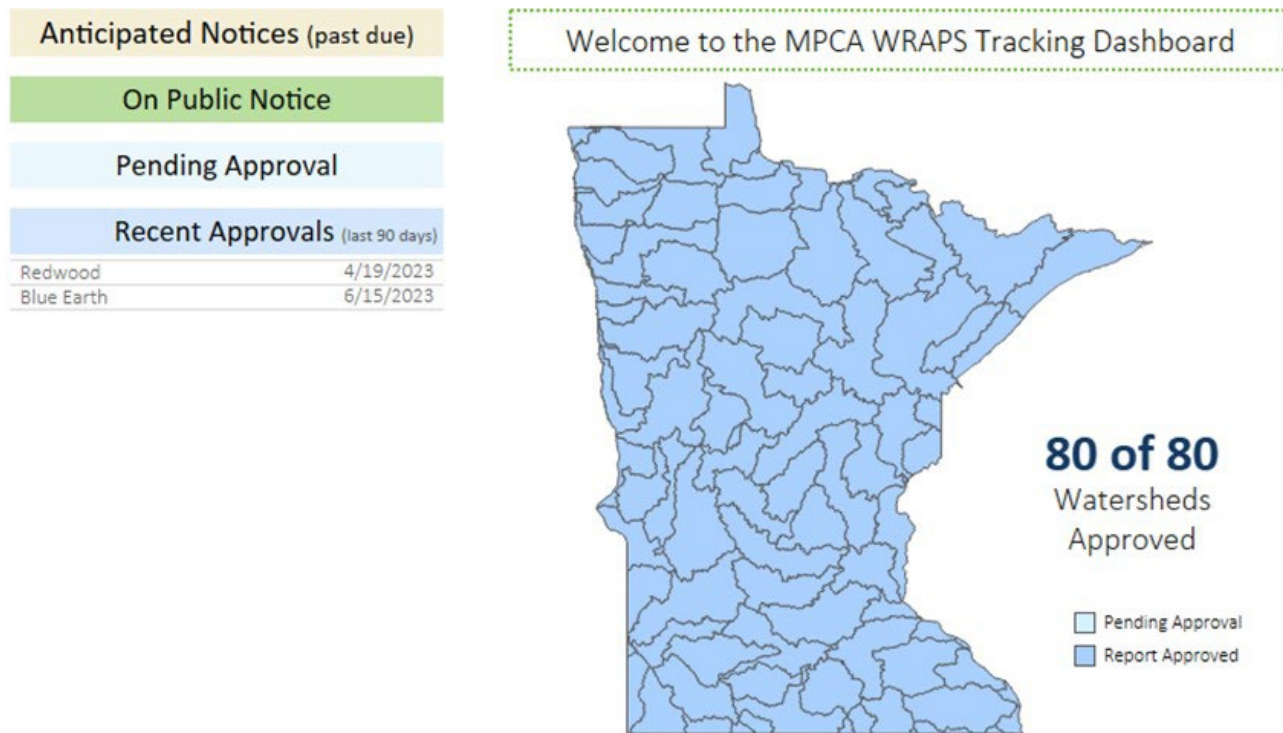


Figure 3. Approval status of WRAPS by watershed in Minnesota, updated 6/28/2022.

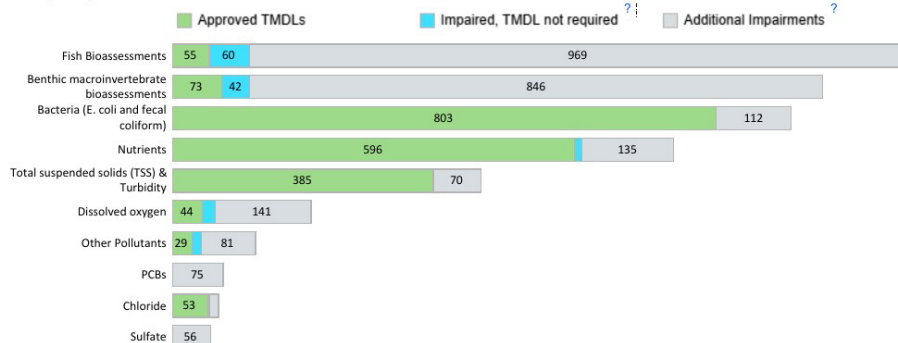
TMDL status (Figure 4) can be found at [CWAA - TMDL Status | Tableau Public](#).

Figure 4. TMDL status.

Showing data for: **All Minnesota watersheds**

Total Maximum Daily Load (TMDL) approval status

The information below tracks the MPCA's efforts to develop TMDLs on all impaired waterbodies on the draft 2024 Impaired Waters List. TMDLs are approved by the U.S. Environmental Protection Agency and set pollutant reduction goals that help target implementation strategies and actions to restore impaired lakes, rivers, and streams.



List of impaired waters and TMDL status

County	Waterbody ID	Waterbody	Pollutant/Stressor	First Listed	TMDL Status	View data
Aitkin	07030004-552	Bear Creek	Benthic macroinvertebrates bioas...	2020	Planned	
			pH	2008	Planned	
	58-0138-00	Big Pine Lake	Nutrients	2020	TMDL Approved, 2021	View data
	01-0062-00	Big Sandy Lake	Nutrients	2002	TMDL Approved, 2011	View data
	01-0188-00	Blind Lake	Nutrients	2010	Planned, 2030	
	07010207-554	Borden Creek	Dissolved oxygen	2010	Planned, 2027	
	01-0123-00	Elm Island Lake	Fish bioassessments	2020	Planned, 2030	
			Nutrients	2010	TMDL Approved, 2020	View data
	01-0147-00	Esquagamah Lake	Nutrients	2010	Planned, 2030	
	01-0105-00	Fleming Lake	Nutrients	2010	TMDL Approved, 2020	View data
	01-0099-00	Gun Lake	Nutrients	2010	TMDL Approved, 2020	View data
	01-0034-00	Horseshoe Lake	Nutrients	2010	TMDL Approved, 2019	View data
	07010104-701	Little Willow River Old Channel	Fish bioassessments	2020	Not Required	
	07010103-518	Minnewawa Creek	Benthic macroinvertebrates bioas...	2018	Not Required	
			Fish bioassessments	2018	Not Required	
	07010103-519	Minnewawa Creek	Fish bioassessments	2018	Planned, 2029	
	01-0033-00	Minnewawa Lake	Nutrients	2002	TMDL Approved, 2011	View data



[About this data](#)

Filter by geography

Watershed

All

Subwatershed

All

County

All

Legislative district (Senate, House)

All

Waterbody (ID or Name)

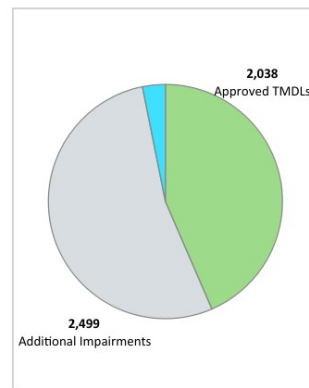
All

Include mercury TMDLs?

☐ Yes

☒ No

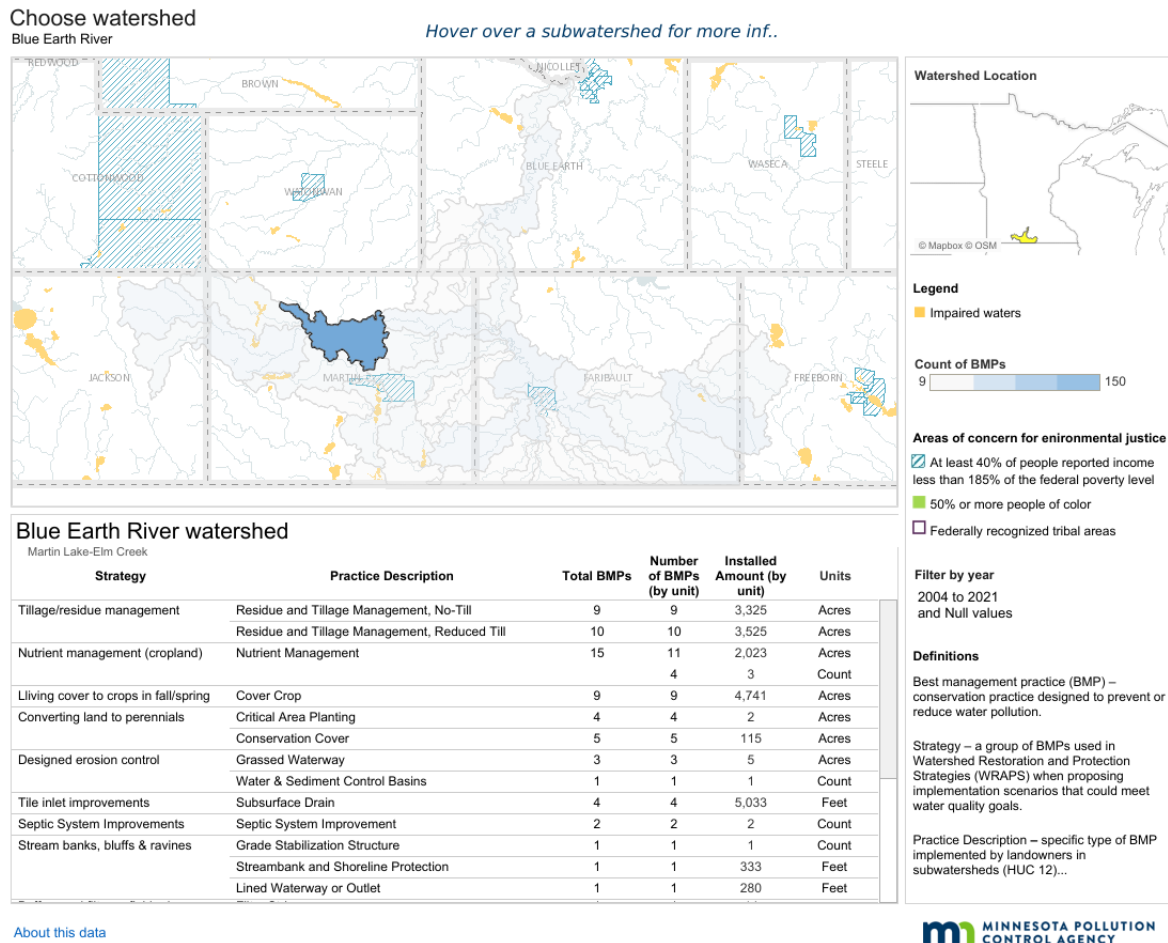
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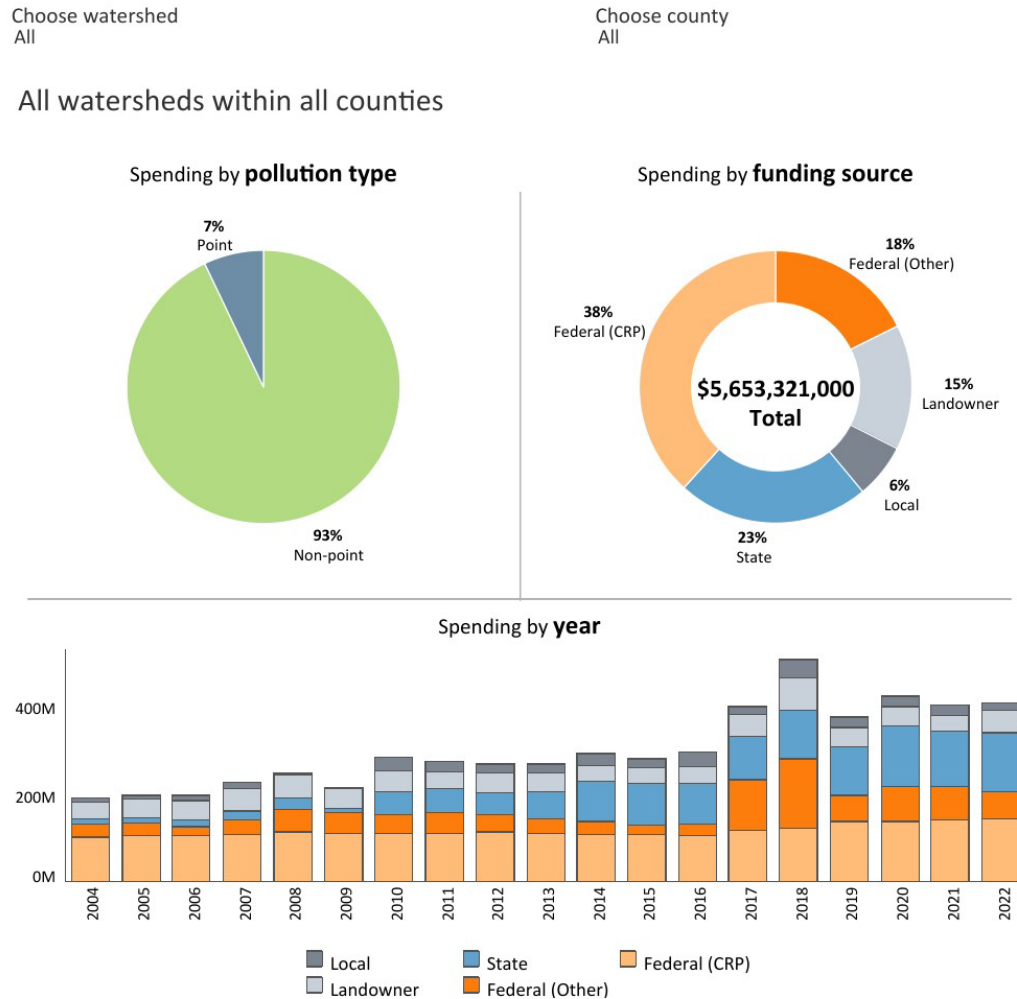
Best management practices implemented by watershed (Figure 5) can be found [CWA - Best management practices by watershed | Tableau Public](#).

Figure 5. BMPs by watershed, Blue Earth River (Martin Lake – Elm Creek) taken August 30, 2022



Implementation spending for watershed implementation projects are described [CWAA - Spending for implementation projects | Tableau Public](#). This describes spending related to state and federally funded programs. Does not include all government spending or private spending for stormwater and other clean water projects.

Figure 6. Spending in all watersheds within all counties in Minnesota, updated Jun 29, 2023.



NPS pollution implementation funding at MPCA

Most of the implementation funding to address NPS pollution in Minnesota is administered by the Minnesota Board of Soil and Water (BWSR). A description of these grant programs can be found at <http://bwsr.state.mn.us/grants>. Funds are awarded, based on program requirements, as competitive and noncompetitive grants, as well as watershed-based funding. Pollutant reductions and BMPs funded by the Section 319 Grant and CWP Loan programs are entered by participants into BWSR's eLINK system.

Section 319 Program

Section 319 Small Watershed Focus Program

The MPCA developed the Section 319 Small Watersheds Focus Program, in partnership with small watersheds, to develop a long-term roadmap to support comprehensive nonpoint source implementation on a small-scale watershed. To date, 35 small watersheds selected for prioritized funding.

The selections are part of the transition in the federal Clean Water Act Section 319 Program from one-time grants to more reliable funding focused on small watersheds. The goal of the program is to help local governments make measurable changes toward water quality improvements. Based on input from many local governments, the program is designed to provide a reliable and longer-term funding source to address all pollutants in small watersheds.

Table 2. Focus Watersheds and the years they are prioritized for funding.

Prioritization group	Group A	Group B	Group C	Group D
Funding years	2020, 24, 28, 32	2021, 25, 29, 33	2022, 26, 30, 34	2023, 27, 31, 35
Prioritized watersheds	Fairmont Chain of Lakes and Dutch Creek (Blue Earth River)	Big Sandy Chain of Lakes	Rat Root River (Rainy River)	Green Lake/Chisago Chain of Lakes (Lower St. Croix)
	Dobbins Creek (Cedar River)	Brown's Creek (St. Croix River)	Cascade Creek (Zumbro River)	Necktie River (Upper Mississippi)
	Plum Creek (Redwood River)	Como Lake (Mississippi River-Twin Cities)	Comfort Lake/Forest Lake Chain (St. Croix River)	Wells Creek (Lake Pepin - Lower Mississippi)
	Upper Hawk Creek and Wilmar Chain of Lakes (Minnesota-Yellow Medicine)	Coon Creek (Mississippi River-Twin Cities)	Amity Creek (St. Louis River)	Blackduck River (Red Lake)
	Sand Creek (Lower Minnesota)	Rice Creek (Le Sueur River)	Pelican Lake (Lake Superior)	Hay Creek Watershed (Roseau River)
	Black River and Red Lake River-Thief River Falls to Crookston	Twelvemile Creek (North Fork Crow River)	Cook SWCD (Devil Track River)	Green Lake (North Fork Crow River)
	Skunk Creek (Nemadji River)	Tamarack, Birch, and Wilkinson Lakes (Vadnais Lake)	Campbell Creek (Otter Tail River)	
	Whiskey Creek (Red River of the North)	West Indian Creek (Zumbro River)	Tributary to the Redeye River	
	Green Lake (Rum River)	Whitefish Chain of Lakes (Pine River)	Rice Lake (North Fork Crow River)	
	Pipestone, Split Rock and Mound Creeks (Big Sioux and Rock Rivers)		Skunk Creek (Lake Superior)	

All LGUs that expressed interest in participating in the Small Watersheds Program were invited to take part in a phone interview. The MPCA conducted telephone interviews with all applicants each year. These candidates were narrowed down further, and three-hour interviews were conducted. The agency then chose ten watersheds for funding based on criteria such as state priorities and collaboration, along with input from the BWSR.

Environmental Performance Partnership Grant

The MPCA requested \$2,918,350 in technical (program) funds from the EPA for FFY 2023 as part of a larger grant agreement that funds multiple programs at the MPCA. Section 319 is the funding source for a portion of that agreement.

The MPCA has entered into an Environmental Performance Partnership Agreement (EnPPA) with the EPA Region 5. This is a multi-year agreement that specifies how the two agencies will jointly protect Minnesota's environment. The EnPPA uses the Performance Partnership Grant (PPG) workplan template

to detail tasks or work commitments from the states. On October 1, 2021, the MPCA and EPA Region 5 entered into a new four-year agreement (FFY2022-2026). This agreement includes air quality permits, mining permits, and the Minnesota Watershed Approach and the Section 319 grants program. For the purposes of this report, only the Section 319 funding will be discussed.

The Performance Partnership Agreement (PPA) is an extension of the MPCA's Strategic Plan and the EPA's Regional Plan. In Minnesota, there are 80 HUC-8 watersheds. In a ten-year period, all 80 HUC-8 watersheds will be intensively monitored or sampled, assessed for impaired waters and waters in need of protection, modeled with U.S. Geological Service HSPF Hydrological Simulation Program-FORTRAN (HSPF) model, and investigated for biological stressors. Using this data, TMDLs are developed. This information is gathered in a WRAPS report that uses this collected data, along with water quality monitoring data, and a wide array of information specific to the watershed, and to create a table of strategies (generally BMPs) needed to achieve water quality standards in that major watershed. Input from not only local governmental units, but also citizens, is integral to the process of creating the WRAPS reports. Ownership by the local stakeholders of the WRAPS report is the central tenet of the process: with that ownership, the right conservation practices are more likely to be implemented in the areas where they're most effective.

Section 319 program funding currently funds 19.85 full-time equivalents (FTE) to support the NPS program work. These positions support the development, management, and administration of the program.

CWP loans

The CWP program offers 1.5%-interest loans to local units of government for implementing nonpoint source BMPs and other activities that target the restoration and protection of a water resource such as a lake, stream, or groundwater aquifer.

Loans can be used for these activities:

- Urban green infrastructure
- Buffers
- Septic system upgrade or replacement
- Technical assistance, outreach, and education
- Equipment (e.g., salt application, street sweeping)
- Any nonpoint source BMP
- Feedlot upgrade or replacement

There was \$2.97 million of CWP Loans awarded in FY 2023. Individual loans are described in the following river basin sections.

Lower Mississippi River Basin

The Lower Mississippi River Basin covers approximately 6,300 square miles. Since 2016, there has been an investment of \$2,285,752 of Section 319 funds and CWP Loan funds for projects in the Lower Mississippi River Basin. Local partners have committed to investing an additional \$3,574,057.88 of state and local matching funds to these projects.

The Lower Mississippi Basin is located in the southeastern portion of Minnesota. Watersheds included in the Lower Mississippi River basin: [Upper Iowa River](#), [Mississippi River - Reno](#), [Root River](#), [Zumbro River](#), [Cannon River](#), [Mississippi River - Lake Pepin](#), [Mississippi River - Winona](#), [Mississippi River - La Crescent](#).

Regionally speaking, southeastern Minnesota has a number of opportunities for improvement. These include the reduction of nitrogen leaching to groundwater, which will more often than not emerge in surface water in this area partially dominated by karst geology. Likewise, the same opportunity is present for the reduction of bacteria leaching and runoff from feedlots as southeast Minnesota is home to four of the top 10 beef and dairy producing counties in the state ([MDA Dairy Industry Profile](#), [MDA Beef Industry Profile](#)). Other significant opportunities lie in the reduction of sediment and nutrient delivery to streams, in part to contribute to the [Nutrient Reduction Strategy for the Mississippi River](#) and to restore and protect the regions water resources.

Newly awarded projects in the Lower Mississippi River Basin

There were no new projects in the Lower Mississippi River Basin in 2023.

Completed projects in the Lower Mississippi River Basin

There were three projects completed in the Lower Mississippi River Basin are shown in Table 4. The final amount of Section 319 and CWP Loan funds invested were \$2,494,749.59 with \$920,799.96 of state and local match. The projects addressed nutrient and sediment loading in the basin, with estimated reductions summarized in Table 3. The BMPs installed included clean water diversion and manure stacking slab, 767 acres of cover crop and sediment dredging.

Table 3. Estimated reductions (eLINK) for completed projects in the Minnesota River Basin.

Pollutant	Reduction (unit)
Phosphorus	59 lbs/yr
Sediment (TSS)	NA
Soil Loss	NA
Nitrogen	5479 lbs/yr
BOD ₅	NA
Bacteria	NA

Table 4. Completed projects in the Minnesota River Basin

Project name	Reducing Bacteria from Southeast Minnesota Feedlots	Whitewater Watershed Nitrogen Reduction Project	Fountain Lake Restoration Project
Project sponsor	Goodhue SWCD	Whitewater Joint Powers Board	Shell Rock WD
FY Awarded	2017	2017	2021
Project timeframe	March 2018 to August 2021	March 2018 to August 2022	April 2021 to April 2024
Funding type	Section 319	Section 319	CWP Loan
Funding	\$23,973.42	\$232,825.00	\$2,237,951.17
Match	\$14,528.09	\$168,320.70	\$737,951.17
HUC code	07040002, 07080201, 07060001, 07040006, 07040003, 07040001, 07040008, 07040004	7040003	07080202
Watershed	Lower Mississippi Basin-multiple watersheds	Mississippi River - Winona	Shell Rock
Project goal	Provide targeted technical and financial assistance to critical loading SE MN open lot feedlots under 500 AU’s and eliminate fecal coliform bacteria runoff from 30 feedlots.	The project addresses nitrate pollution to surface waters within critical source areas by increasing implementation of nitrogen BMPs and cover crops.	The goal of the Fountain Lake Restoration Project is to improve water quality by removing 290,000 cubic yards of sediment to reduce internal loading of nutrients, reduce harmful algal blooms, and improve water clarity within Fountain Lake.
BMPs installed	Clean water diversion and manure stacking slab	767 cover crop acres	1,266,658 cubic yards of phosphorus rich sediment dredged
Estimated reductions achieved (eLINK)	Phosphorus: 59 lbs/yr Sediment: NA Soil Loss: NA Nitrogen: 169 lbs/yr BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: 5310 lbs/yr BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss NA Nitrogen: NA BOD5: NA E. coli: NA
Project highlights	Four SWCD/Counties that completed work related to prioritizing feedlots in their county; two partners provided technical assistance, and one partner completed a cost- share project for a clean water diversion and manure stacking slab to reduce runoff.	Primary project partners included Olmsted and Winona County SWCDs, who provided technical support to farmers participating in the cover crop program. University of Minnesota Extension provided technical guidance to farmers involved with test plots. A total of 18 farmers planted cover crops from 2018 through 2020. Many of these participants often planted more acres than available incentives, averaging over 260 extra cover-cropped acres each year.	Project highlights include removing 1,266,658 cubic yards of sediment from Fountain Lake’s Edgewater and Main basins. The estimated phosphorus reduction is 52-63% for Fountain Lake as a result of active dredging. The predicted summer-average total phosphorus concentrations of Edgewater bay are shown to drop from 203 µg/L to 136 µg/L, and in the Main Bay from 202 µg/L to 166 µg/L.
Partnerships	Fillmore, Goodhue, Houston, Rice, Winona and Wabasha SWCDs	Olmsted and Winona County SWCDs, local farmers, and University of Minnesota Extension	Albert Lea Lakes Foundation, the Freeborn County – Albert Lea Chamber of Commerce, the City of Albert Lea, Albert Lea Convention and Visitors Bureau, Albert Lea Anglers, The Fountain Lake Sportsman’s Club, Albert Lea Area Community Education, Freeborn County, Bayside Water Ski Show Team, and the Albert Lea Economic Development Agency.

Active projects in the Lower Mississippi River Basin

There is one project that is currently under way in the basin are described in Table 5. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are \$320,705.50 of Section 319 and CWP Loan funds, with \$1,430,886.96 of committed local and state matching funds.

Table 5. Active projects in the Lower Mississippi River Basin.

Project name	West Indian Creek Watershed Restoration and Protection Project Phase 1
Sponsor	Wabasha SWCD
FY Awarded	2021
Project timeframe	January 2022 to August 2025
Funding type	Section 319
Funding	\$320,705.50
Match	\$1,430,886.96
HUC8 code	07040004
Watershed	Zumbro
Project goal	The project will be phase one implementation of goals and activities in the WIC Nine Key Element (NKE) Plan (the Plan) through social and technical activities. Project activities will focus on the critical areas described in the Plan. The critical areas include areas that export the highest amount of sediment, total phosphorus, and total nitrogen determined by Hydrological Simulation Program – FORTRAN (HSPF) modelled pollutant loading.
BMPs installed to date	651 acres Cover Crops 1 Critical Area Planting 11 Grade Stabilization Structures 15,550 LF Grassed Waterway 2 Terraces 20 WASCObS
Reductions to date (eLINK)	Phosphorus: 1286.30 lbs/yr Sediment: 1029.38 t/yr Soil Loss: 1830.34 t/yr Nitrogen: 4654.63 lbs/yr BOD5: NA E. coli: NA

Minnesota River Basin

The Minnesota River Basin covers approximately 15,000 square miles within the State of Minnesota.

Since 2016, there has been an investment of \$17,405,443 of Section 319 funds and Clean Water Partnership Loan funds. Local partners have invested an additional \$5,745,506 of state and local match dollars to these projects. The projects funded by Section 319 and CWP Loan funds address sediment and nutrient loading, improving soil health, addressing altered hydrology, in-lake contributions, and upgrading and replacing SSTS.

This could be a pivotal year for the Minnesota River and its tributaries (Figure 7). Recent watershed assessment studies emphasize the need for widespread changes to the Minnesota River Basin, which covers 10 million acres in southern Minnesota.

Figure 7. The Minnesota River Basin.



Sediment pollution (also called total suspended solids) is clouding the water in the major portion of the Minnesota River. The TMDL and sediment reduction studies call for decreasing sediment in the river by 50%. The Minnesota River Basin has erodible soils and is naturally vulnerable to sediment pollution. The incised zone of many watersheds compounds this but some practices, such as artificial drainage, worsen the situation by bringing too much water, too quickly, into the system. Increasing flows are a major threat to water quality in the basin, accelerating riverbank erosion and threatening infrastructure. In the past 80 years, flow amounts have doubled in the Minnesota River.

The increased flow isn't just due to increased rainfall; the river carries more water per inch of rain than in previous decades. Increased artificial drainage, fewer wetlands to store water, lack of perennial vegetation and agricultural and urban land use practices all contribute to higher flows and erosion of fields and streambanks.

The muddy water then makes it hard for fish and other aquatic species to breathe, find food, and reproduce. The sediment is also filling in the Lower Minnesota River and Lake Pepin downstream at a much faster rate than before European settlement and intensive farming of the basin.

The Minnesota River Basin contains the following HUC-8 watersheds: [Minnesota River – Headwaters](#), [Pomme de Terre River](#), [Lac qui Parle River](#), [Minnesota River – Yellow Medicine](#), [Chippewa River](#), [Redwood River](#), [Minnesota River - Mankato](#), [Cottonwood River](#), [Blue Earth River](#), [Watowan River](#), [LeSueur River](#), and [Lower Minnesota River](#).

Newly awarded projects in the Minnesota River Basin

There were three projects awarded in the Minnesota River Basin in 2023, which are summarized in Table 6. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$2,220,000 of CWP loans for newly awarded in the Minnesota River Basin, with a commitment of \$32,200 in local match.

Table 6. Newly awarded projects in the Minnesota River Basin.

Project name	Lac qui Parle-Yellow Bank SSTS Loans Phase III	Lowry Private Sanitary Sewer Service Replacement	CWP Lincoln County Septic Loan 2
Project sponsor	Lac qui Parle - Yellow Bank Watershed District	City of Lowry	Lincoln County
FY Awarded	2023	2023	2023
Project timeframe	September 2022 - September 2025	October 2022 - October 2025	April 2023 - June 2026
Funding type	CWP Loan	CWP Loan	CWP Loan
Funding	\$750,000.00	\$750,000.00	\$720,000.00
Match	\$5,000	\$-	\$27,200.00
HUC code	07020003, 07020001, 07020004	70200050301	07020004, 10170202, 07020003, 07020006
Watershed	Lac qui Parle, MN River Headwaters, Yellow Medicine	Chippewa River	Lac Qui Parle, Upper Big Sioux, Hawk Creek - Yellow Medicine River, Redwood River
Project goal	Replace and promote SSTS. Within Lac qui Parle County, where loan dollars are to be used, 11 current impairments for fecal coliform exist and have a multi-parameter TMDL completed in 2013.	Reduce excessive wastewater flows from clean water I/I of the private sanitary sewer lines in the City of Lowry to prevent future collection system bypasses and wastewater treatment facility permit violations. Maintaining compliance with the city’s wastewater treatment facility permit will protect downstream water quality.	The project will include the installation or upgrade of subsurface sewage treatment systems (SSTSs) failing to meet standards or in need of replacement.
BMPs planned	Replace 30 SSTS	Replace the defective private sanitary sewer lines connected to the city wastewater collection system.	31 SSTS replacement
Estimated reductions	Phosphorus: 210 lbs/yr Sediment: 1.4 t/yr Soil Loss: NA Nitrogen: 675 lbs/yr BOD5: 5,060 lbs/yr E. coli: 50E+14 CFU	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 87 lbs/yr Sediment: 1,661 lbs/yr Soil Loss: NA Nitrogen: 133 lbs/yr BOD5: 3,007 lbs/yr E. coli: 6.01E+14 CFU

Completed projects in the Minnesota River Basin

There were three projects completed in the Minnesota River Basin are shown in Table 8. The final amount of Section 319 and CWP Loan funds invested were \$3,356,154 with \$328,098 of state and local match. The projects addressed nutrient and sediment loading in the basin, with estimated reductions summarized in Table 7. Best management practices (BMPs) installed included both structural practices and education/outreach activities.

Table 7. Estimated reductions (eLINK) for completed projects in the Minnesota River Basin.

Pollutant	Reduction (unit)
Phosphorus	1,518.00 lbs/yr
Sediment (TSS)	3,206.13 t/yr
Soil Loss	NA
Nitrogen	1,378.00 lbs/yr
BOD ₅	NA
Bacteria	1.97E+15 cfu/yr

Table 8. Completed projects in the Minnesota River Basin

Project name	Seven Mile Creek Assessment and Implementation	Lac Qui Parle-Yellow Bank SSTS Loans Phase II	Renville County Buffer Implementation Loan Program
Project sponsor	Gustavus College	Lac qui Parle-Yellow Bank Watershed District	Renville County
FY Awarded	2017	2019	2021
Project timeframe	June 2018 to August 2022	August 2018 to December 2022	August 2020 to July 2023
Funding type	Section 319	CWP Loan	CWP Loan
Funding	\$475,524	\$688,726	\$2,191,905
Match	\$328,098	\$-	\$-
HUC code	7020007	07020003, 07020001, 07020004	07020012, 07020007, 07020004, 07010205
Watershed	MN River - Mankato	Lac qui Parle, MN River Headwaters, Yellow Medicine	Minnesota River: Lower, Middle (Mankato), Yellow Medicine/Hawk Creek Mississippi: South Fork Crow
Project goal	Gather watershed data necessary to evaluate the effectiveness of BMP implementation in a typical agricultural watershed in southern Minnesota.	Provide low interest funds for homeowners to bring non-conforming septic systems into compliance of the Minnesota Rules Chapter 7080. Upgrades for 70 to 80 SSTS in Lac qui Parle County.	Provide loan funding to purchase easements and establish approximately 800 acres of vegetative buffers along nearly 230 miles of open drainage ditches located in portions of the Hawk Creek, High Island, Crow River, and Middle Minnesota watersheds.
BMPs installed	7 vegetated buffers, 1 manure pit closure, 1 grade stabilization project, 1 drainage water management project, and 2 cover cropping contracts were funded by “match” dollars from the BWSR grant.	58 noncompliant subsurface sewage treatment systems were upgraded or replaced	The primary outcome in the work plan was to purchase easements and establish approximately 800 acres of vegetative buffers along nearly 230 miles of open drainage ditches located in portions of the Hawk Creek (Minnesota River – Yellow Medicine River), High Island (Lower Minnesota River), Crow River (South Fork Crow River), and Middle Minnesota (Minnesota River – Mankato) watersheds. This program provided loan funding to purchase easements and establish 1,677.78 acres of vegetative buffers along nearly 419.45 miles of buffers.
Estimated reductions achieved (eLINK)	Phosphorus: 1,222 lbs/yr Sediment: 0.33 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 283 lbs/yr Sediment: 3,198 t/yr Soil Loss: NA Nitrogen: 1,020 lbs/yr BOD ₅ : NA E. coli: 1.9718E+15 CFU/yr	Phosphorus: 13 lbs/yr Sediment: 7.8 tons/yr Soil Loss: NA Nitrogen: 358 lbs/acre/yr BOD ₅ : NA E. coli: NA
Project highlights	Project highlights - 7 vegetated buffers, 1 manure pit closure, 1 grade stabilization project, 1 drainage water management project, and 2 cover cropping contracts were funded by “match” dollars from the BWSR grant. (Many additional projects occurred in preceding years.) - Watershed monitoring, data analysis, mentoring, outreach and education activities occurred September 2018 – August 2022. - A Nine Key Element Plan was completed, and project activities aligned with that plan. - There are no plans to continue this work in the SMC watershed. Nicollet SWCD will continue engaging with farmers as usual, and GRG is applying lessons learned to other watersheds.	From August 2018 through August 2022, fifty-eight noncompliant subsurface sewage treatment systems were upgraded or replaced to address fecal coliform and E. coli based beneficial use impairments using financial aid from the loan dollars available through the watershed district. The Lac qui Parle – Yellow Bank Watershed District has been responsible for implementation of the project. The district has worked in conjunction with Lac qui Parle County Treasurer’s Office for placement of assessments on landowner property taxes who have received funding. The watershed has additionally worked closely with MPCA to submit and receive disbursement requests. The Watershed has continued offering loans to replace treatment systems and continue to improve water quality. The loan had a very favorable interest rate and likely enticed participation which was noticed as there was a need to request additional funds prior to the loan expiration.	This program provided \$2,191,904.52 in loans for 6,393 parcels between July 7, 2020, and December 31, 2022. 419.45 miles of buffers and 1,677.78 acres of easements/buffers were implemented as a result of the program. There is an estimated reduction of 60,0061.52 lbs/acre/yr of Nitrogen, 21,978.92 lbs/acre/yr of Phosphorus, and of Major, partners included landowners, Renville County Auditor/Treasurer, Renville County Public Works (Drainage), Renville County Environmental Services, and Minnesota Pollution Control Agency. Renville County has identified the need to establish vegetative buffer strips within at least two Goals and Objectives in the Renville County Comprehensive Local Water Plan.
Partnerships	Gustavus Adolphus College, Great River Greening, Nicollet Soil and Water Conservation District	Yellow Bank Watershed District, Lac qui Parle County, Lac qui Parle County Environmental Office, Landowners, Local contractors, MPCA	Renville County, Landowners, MPCA

Active projects in the Minnesota River Basin

There are 13 projects that are currently under way in the basin are described in Table 9. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There is currently \$3,835,060 of Section 319 and CWP loan funds invested in the Minnesota River Basin. Those funds are leveraged by a commitment of \$1,949,842 in local and state matching funds.

Table 9. Active projects in the Minnesota River Basin

Project name	Hawk Creek Watershed FFY 2018 Implementation Project	Brush Creek & Blue Earth River Sediment	Improving Chetomba, Sacred Heart & Wood Lake Creek	Pomme de Terre Watershed BMP Implementation	Whetstone River Restoration	Yellow Medicine County Non-Conforming SSTS Abatement Project	Fairmont Lakes Plan Implementation Phase 1
Project sponsor	Hawk Creek Watershed Project	Faribault SWCD	Hawk Creek Watershed Project	Pomme de Terre River Association	Upper Minnesota River WD	Yellow Medicine County	Martin Soil and Water Conservation District (SWCD)
FY Awarded	2018	2019	2019	2019	2020	2021	2021
Project timeframe	March 2019 to August 2023	January 2020 to August 2023	January 2020 to August 2023	January 2020 to August 2023	March 2020 to March 2023	March 2021 to March 2024	November 2020 to August 2024
Funding type	Section 319	Section 319	Section 319	Section 319	CWP Loan	CWP Loan	Section 319
Funding	\$477,000.00	\$387,000.00	\$499,860.00	\$304,100.00	\$430,000.00	\$600,000.00	\$284,275.00
Match	\$318,000.00	\$302,000.00	\$334,000.00	\$205,000.00	\$-	\$-	\$190,000.00
HUC code	7020004	07020009	07020004	07020002	70200001	07020004, 07020003, 07020006	07020009
Watershed	MN River - Yellow Medicine	Blue Earth	MN River - Yellow Medicine	Pomme de Terre	Minnesota River-Headwaters	Yellow Medicine River, Lac qui Parle River, Redwood River	Blue Earth
Project goal	Carry out BMP implementation in critical areas to work towards the goals of the Hawk Creek Watershed TMDL, Hawk Creek Watershed WRAPS, and Lower Minnesota River Dissolved Oxygen TMDL Implementation Plan. BMPs will include alternative/side intakes, grade stabilization, WASCOB, lakeshore restoration, ag waste project, cover crops, and no till/strip tillage.	Implementation of BMPs focusing on sediment reduction, nutrient transport, and increased infiltration in the Blue Earth Watershed.	Implement prioritized BMPs and increase civic engagement in critical areas to reduce nonpoint sources of E. coli, sediment (TSS), and nutrient eutrophication in order to achieve the impairment and water quality goals for the Hawk Creek Watershed.	Implement BMPs effective in abating nonpoint source phosphorous and sediment runoff to impaired waterbodies within the Pomme de Terre watershed.	Engineering Design Report, funding for flowage easements and land purchases between the levees. The completed project moves beyond operations and controls by moving toward a permanent solution to Big Stone Lake water quality and restoration of the lower Whetstone and Minnesota Rivers.	Offer loans to approximately 45 landowners to replace non-conforming septic systems. Priority will be given to those systems in Floodplain, Shoreland, and areas with completed TMDLs or identified in the Yellow Medicine River One Watershed One Plan.	Reduce TSS, E. coli, and nutrient loading to the Fairmont Chain of Lakes.
BMPs installed to date	695.60 acres Conservation Cover 1,399.90 acres Cover Crop 175 LF Pond for Water Use 7 Grade Stabilization Structure 196.7 LF Grassed Waterway 110 acres Prescribed Grazing 2 Streambank and Shoreline Protection 8,122 LF Terrace 8 WASCOBs	1,066 acres Residue & Tillage Management 5,424 acres Cover Crop 14 Grade Stabilization Structures 2 Grassed Waterways 2,316 LF Stream Channel Stabilization	1 Waste Storage Facility 622 acres Conservation Cover 1,140 acres Cover Crop 2 Grade Stabilization Structures 18 LF Stream Channel Stabilization 3 WASCOBs	2 Grassed Waterways – 3,850 Ln. Ft., 1 Lined Waterway – 1,760 Ln. Ft. , 1 Rain Garden – 1,350 Sq. Ft. Contributing Watershed , 17 Water and Sediment Control Basins, 1 Alternative Tile Intake 1 Shoreline Restorations – 150 Ln. Ft., 1 Cover Crop Contract – 69.4 acres/year for 3 years	Planning and design work	17 Septic upgrades	4 acres Grassed Waterway 3 WASCOBs
Estimated reductions to date (eLINK)	Phosphorus: 3,747.40 lbs/yr Sediment: 3,363.49 t/yr Soil Loss: 2,737 t/yr Nitrogen: 170.2 lbs/yr BOD ₅ : NA E. coli: NA	Phosphorus: 2,017.42 lbs/yr Sediment: 1773,419 t/yr Soil Loss: 3,905.03 t/yr Nitrogen: 40,633.96 lbs/yr BOD ₅ : NA E. coli: NA	Phosphorus: 334.42 lbs/yr Sediment: 122.50 t/yr Soil Loss: 30.24 t/yr Nitrogen: 2,006.22 lbs/yr BOD ₅ : NA E. coli: NA	Phosphorus: 1,766.44 lbs/yr Sediment: 2,000.99 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 101 lbs/yr Sediment: 0.65 t/yr Soil Loss: NA Nitrogen: 382 lbs/yr BOD ₅ : NA E. coli: NA	Phosphorus: 55.84 lbs/yr Sediment: 134.84 t/yr Soil Loss: 332.44 t/yr Nitrogen: 477.14 lbs/yr BOD ₅ : NA E. coli: NA

Table 9. continued. Active projects in the Minnesota River Basin

Project name	Upper Hawk Creek Watershed Restoration Phase 1	Plum Creek Watershed Phase 1	Sand Creek Phase 1: The Daikini	Rice Creek Watershed NKE P1	Chippewa County Septic System Upgrades II Project	Swift County SSTS Upgrades II
Project sponsor	Hawk Creek Watershed Project (HCWP)	Redwood County Soil & Water Conservation District	Scott Watershed Management Organization (SWMO)	Faribault County Soil and Water Conservation District (SWCD)	Chippewa County	Swift County
FY Awarded	2021	2021	2020	2022	2022	2022
Project timeframe	December 2020 to August 2024	October 2020 to August 2024	December 2020 to August 2024	March 2022 to December 31, 2025	June 2021 to June 2024	June 2022 to June 2025
Funding type	Section 319	Section 319	Section 319	Section 319	CWP Loan	CWP Loan
Funding	\$284,275.00	\$284,275.00	\$284,275.00	\$320,705.50	\$250,000.00	\$350,000.00
Match	\$190,000.00	\$189,517.00	\$221,325.00	\$213,804.00	\$-	\$-
HUC code	07020004	07020008	07020012	070200110401, 070200110402, 070200110403	07020005, 07020004, 07020002	07020005, 07020002
Watershed	Minnesota River-Yellow Medicine	Cottonwood River Watershed	Lower Minnesota River Major	Rice Creek Watershed	Chippewa River, Hawk Creek & Upper MN River Watersheds	Chippewa River & Pomme de Terre Watersheds
Project goal	The goal is to address existing watershed impairments and to decrease pollutant loading to downstream waterbodies.	Implementation of BMPs that are effective at abating non-point source sediment runoff and E. coli to impaired waterbodies within the Plum Creek Watershed.	Implementation practices will address the Management Area (MA) needs as well as having additional benefits in downstream MAs.	The primary goals of this plan are to restore and to protect the water quality of the impaired waterbodies in the watershed (Rice Creek and Lura Lake). Implementation of the plan will result in the attainment of the water quality standards for Rice Creek and Lura Lake. Implementation work will be prioritized to critical areas, with a focus on the impaired waters. Protection for waters trending toward impairments will be considered high priority areas of concern.	SSTS systems to be upgraded/replaced to reduce nutrient and bacteria loading and to protect human health.	This project will allow Swift County to offer Clean Water Partnership low interest loan funds for Sub-surface Sewage Treatment System (SSTS) upgrades where systems are currently failing or are an imminent threat to public health & safety (ITPHS).
BMPs installed to date	Agriculture BMP's: 1,000 acres of soil health practices, 5 side inlet practices for drain tile, 2 WASCOBs and 650 acres of reduced tillage and/or nutrient management Lakeshore BMPs - proper lawn clipping placement, leaf management, and fertilizer. Urban BMPs - 2 residential rain gardens & 5 rain barrels.	24 Water and Sediment Control Basins (WASCOB), 8 grade stabilization structures, and 1 miles of streambank stabilization.	40 acres of Conservation Tillage, 10 Rock Tile Inlets, 900 In-ft of Grassed Waterway, 1 Wet Detention Basin, 2.5 acres of Filter Strip, 1450 In-ft of Terraces, & 4 WACOB's	1000 acres of cover crops, 1500 acres of strip till, 2000 acres of reduced tillage, 1512 acres of no till, 22 rock intakes, two waterways, 12 grade stabilization structures, 5 WASCOBS, 1 community rain garden, 5 rain gardens, Shoreline restoration, Lura Lake fish barrier	25 SSTS upgrades	Upgrade 30 failing SSTS
Estimated reductions to date (eLINK)	Phosphorus: 1136 lbs/yr Sediment: 626 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: 2.8E+14 CFU	Phosphorus: NA Sediment: 577 tons/y Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: 340 Billion MPN/yr	Phosphorus: 364 lbs/yr Sediment: 35 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 113,312.11 lbs/yr Sediment: 88,792.56 t/yr Soil Loss: 283,372.36 t/yr Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 66 lbs/yr Sediment: TSS 943 mg/L Soil Loss: t/yr Nitrogen: 155 lbs/yr BOD ₅ : 1706 lbs/yr E. coli: 4.64E+14 CFU	Phosphorus: 154 lbs/yr Sediment: TSS 1,750 mg/L Soil Loss: t/yr Nitrogen: 364 lbs/yr BOD ₅ : 3,164 lbs/yr E. coli: 107.8E+130 CFU

Des Moines and Missouri River Basins

The Minnesota portion of the Des Moines River, Missouri – Big Sioux, Missouri – Little Sioux cover approximately 3,300 square miles. Since 2016, there has been an investment of \$2,862,157 of Section 319 funds and CWP Loan funds. Local partners have invested an additional \$317,867 of state and local match dollars to these projects. These projects span a period of three to four years.

The Des Moines River watershed is located in southwestern Minnesota, including parts of Lyon, Pipestone, Murray, Cottonwood, Nobles, Jackson, and Martin counties. There are two HUC-8 watersheds in Minnesota, [Des Moines River –Headwaters](#) and [East Fork Des Moines River](#). It has five subwatersheds: Lake Shetek, Beaver Creek, Heron Lake, Lime Creek, and the West Fork Des Moines River Main Stem. The river joins the East Fork Des Moines River in Iowa, and eventually enters the Mississippi River at Keokuk, Iowa. It is located in the Western Cornbelt Plains ecoregion of southwestern Minnesota and northern Iowa.

The river is used for recreational activities such as fishing, tubing, snowmobiling, and canoeing. It is also a valuable fisheries resource with the following species of fish prevalent throughout the watershed: northern pike, buffalo, carp, walleye, channel catfish, crappie, and bullhead. Land use is primarily agricultural. Okamanpeedan, Bright and Pierce Lakes in the eastern part of the watershed in Minnesota are used for recreation such as fishing and hunting. Several shallow waterfowl lakes are also located in the southern part of the watershed.

The Missouri River Basin has three HUC-8 watersheds in Minnesota, the [Upper Big Sioux River](#), [Lower Big Sioux River](#), and [Rock River](#).

Newly awarded projects in the Des Moines and Missouri River Basins

There were no new projects in the Des Moines and Missouri River Basins in 2023.

Completed projects in the Des Moines and Missouri River Basins

There was one project completed in the Des Moines and Missouri River Basin are shown in Table 10. The final amount of CWP Loan funds invested was \$89,723.

Table 10. Completed projects in the Minnesota River Basin

Project name	Wellhead Nitrogen Reduction Project
Project sponsor	Rock County Rural Water
FY Awarded	2020
Project timeframe	June 2020 to June 2023
Funding type	CWP Loan
Funding	\$89,723
Match	\$-
HUC code	10170204
Watershed	Rock River
Project goal	To reduce nitrate pollutant levels by purchasing land directly in our flow path of groundwater to our wells. The land acquisition will have a large positive impact on nitrate levels in our wells, provides additional filtration for the Rock River and improve wildlife habitats.
BMPs installed	Plant native grasses
Estimated reductions achieved (eLINK)	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA
Project highlights	The land acquisition of 120 acres completed by the next planting season. Plant native grasses to the land. We believe it will take 2-3 years to establish a good covering of grass. We plan to maintain the land to highest quality standards possible. Reduce the highest recorded nitrate level in one of the wells from 25ppm to 10ppm or less. We had another well in this area with similar land use that we put a large grass buffer around and the nitrates dropped almost in half. We are anticipating the same results with this project. We are also hoping to reduce the infiltration of other pollutants through this land acquisition and perennial grass seeding. Gather data to share with other water suppliers and state entities to help other communities with similar issues. Rock County Rural Water will be constantly monitoring our wells that are in the draw zone to monitor nitrate levels sampling and collecting data.
Partnerships	Rock County Rural Water

Active projects in the Des Moines and Missouri River Basins

There are four projects that are currently under way in the basin are described in Table 11. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There is currently \$2,217,485.00 of Section 319 and CWP loan funds invested in the Des Moines and Missouri River Basin. Those funds are leveraged by a commitment of \$201,267.00 in local and state matching funds.

Table 11. Active projects in the Des Moines and Missouri River Basins.

Project name	Complete water softener removal	Heron Lake phosphorus reductions III	Pipestone, Split Rock and Mound Creeks phase 1	Pipestone sanitary improvement project
Project sponsor	City of Lakefield	Heron Lake WD	Pipestone SWCD	City of Pipestone
FY Awarded	2020	2020	2020	2022
Project timeframe	October 2019	March 2020 to March 2023	December 2020 to August 2024	July 2021 to July 2024
Funding type	CWP Loan	CWP Loan	Section 319	CWP
Funding	\$483,210.00	\$430,000.00	\$284,275.00	\$1,000,000
Match	\$2,100.00	\$-	\$189,517.00	\$-
HUC code	7100001	07100001, 07100002	1070203, 1017204	10170203
Watershed	Des Moines Headwaters, Heron Lake	Des Moines Headwaters, Lower Des Moines	Lower Big Sioux, Rock	Lower Big Sioux
Project goal	The program will remove chlorides being discharged into the Heron Lake Watershed. Chlorides are toxic to aquatic life.	Through the low interest loan project, the HLWD proposes to replace 30 Subsurface Sewage Treatment System (SSTS) over the three-year period.	Restore water quality to standards, which provide for ultimate public recreational opportunities, while increasing agricultural production, profitability, and sustainability.	Replace or rehabilitate 200 private sanitary sewer service lines.
BMPs installed to date	In progress	13 Septic’s Installed	43.55 Acres Rotational Grazing	43 Service lines updated
Estimated reductions to date (eLINK)	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 104 lbs/yr Sediment: 1.03 t/yr Soil Loss: NA Nitrogen: 248 lbs/yr BOD5: 4,117 lbs/yr E. coli: 7.33E+14 CFU	Phosphorus: 4.6 lbs/yr Sediment: 1.9 t/yr Soil Loss: NA Nitrogen: 26.7 lbs/yr BOD5: NA E. coli: 1.89E+13 CFU	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD

Lake Superior Basin

Minnesota's portion of the Lake Superior Basin (HUC-4) encompasses approximately 6,000 square miles and is located within Carlton, Cook, Lake, Pine and St. Louis counties in northeastern Minnesota. The Lake Superior Basin is remarkably diverse in natural features including the rugged coastline of Lake Superior, with bedrock outcrops, cascading waterfalls and coldwater streams draining to Lake Superior. The Lake Superior Basin is split into two HUC-8s watersheds, the [Lake Superior - North](#) and [Lake Superior - South](#) watersheds. The interior area, comprised of the [St. Louis River](#) and [Cloquet River](#) watersheds, includes a diverse mix of lakes and streams, along with significant areas of wetlands and peatlands. The southern portion includes the [Nemadji River](#) watershed, a stream-dominated drainage developed on a glacial lake plain. Many of the streams in the basin support coldwater and sensitive species, including wild rice. Overall, the Lake Superior Basin is sparsely populated, with people concentrated mainly in Duluth & surrounding communities in the south, the Iron Range communities in the northwest, in small towns dotting Lake Superior's North Shore, and other small communities distributed throughout. Two tribal governments and reservations, Fond du Lac Band of Lake Superior Chippewa, near Cloquet, and Grand Portage Band of Lake Superior Chippewa, at Grand Portage, are located in the Basin, along with the 1854 Treaty Area. A large percentage of lands are publicly owned, including portions of the Boundary Waters Canoe Area Wilderness, the Superior National Forest, and State & County managed forested lands. Lands are managed for forestry/forest management, small agricultural operations in the south & western basin, iron mining on the northwest edge, and aggregate mining throughout. Tourism and recreational outdoor activities, such as hiking, canoeing, fishing and hunting are popular in this region. The undeveloped nature for much of the basin is undoubtedly key to the high-water quality of most lakes and streams. Minnesota's efforts to restore, protect and maintain water quality on those tributary lakes and streams are a primary focus for protecting Lake Superior and the Lake Superior Basin.

Despite its immense size, Lake Superior is surprisingly vulnerable. The year-round cold temperatures of Lake Superior and small amount of nutrients entering the lake result in a simple and fragile food chain. Because Lake Superior is nourished by forests and watered by streams, changes on the land become changes in the lake. We find algae blooms in Lake Superior bays, decreasing clarity in the western arm of the lake, contaminated sediment in the Duluth-Superior harbor and toxic contaminants building up in the food chain.

Unlike waters such as the Mississippi and Minnesota Rivers, most of Lake Superior has never suffered the extreme degradation that once characterized these rivers. Slowly, carefully, and with considerable effort and expense, those waters are being reclaimed. The challenge with Lake Superior is to keep it as clean as it is now and to clean up the problems that have been found.

Newly awarded projects in the Lake Superior Basin

There were no new projects in the Lake Superior Basin in 2023.

Completed projects in the Lake Superior Basin

There were no completed projects in the Lake Superior Basin in 2023.

Active projects in the Lake Superior Basin

There is one project that is currently under way in the basin are described in Table 12. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed,

and the goal of the project. There are currently \$284,275 of Section 319 funds newly awarded in the Lake Superior Basin, with a commitment of \$350,000 in local match.

Table 12. Active projects in the Lake Superior Basins

Project name	Skunk Creek Watershed restoration and Protection project phase 1
Project sponsor	Carlton Soil and Water Conservation District
FY Awarded	2020
Project timeframe	November 2020 to August 2024
Funding type	Section 319
Funding	\$284,275.00
Match	\$350,000.00
HUC code	4010301
Watershed	Nemadji River
Project goal	Improve aquatic habitat by removing the aquatic organism barrier on Elim Creek, reduce TSS loading from road erosion on Skunk and Elim Creeks, and work towards future watershed restoration projects.
BMPs installed to date	1 WASCOB
Estimated reductions to date (eLINK)	Phosphorus: 35.20 lbs/yr Sediment: 35.20 lbs/yr Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA

Rainy River Basin

The Rainy River Basin encompasses a total area of 27,114 square miles, of which 11,244 square miles (41 percent) are in Minnesota and 15,870 square miles (59 percent) are in Ontario. The primary focus of the Rainy River Basin Information Document is on the Minnesota portion of the Basin. The Minnesota portion of the Basin is bounded on the north by the Province of Ontario, the east by the Lake Superior Basin, the south by the Upper Mississippi Basin and the west by the Red River Basin.

The Rainy River Basin is home to some of Minnesota's finest forest and water resources. Voyageurs National Park and the Boundary Waters Canoe Area Wilderness (BWCA) are located within the Rainy River Basin, as are several of the state's most famous walleye fisheries and many top-notch trout streams.

The Basin includes portions of eight Minnesota counties, including substantial portions of Cook, Itasca, Lake, Lake of the Woods, Koochiching, and St. Louis Counties with relatively minor portions of Beltrami and Roseau Counties.

The headwaters of the Basin are located in Cook, Lake, Itasca and St. Louis Counties. The eastern headwaters portion of the Basin includes an extensive area of irregularly shaped lakes on Canadian Shield topography. This area includes the BWCA. The southern headwaters portion includes the Vermilion Iron Range, part of the Mesabi Iron Range, and, in Itasca County, numerous northern lakes situated in glacial till.

The central, or large lakes, portion of the Basin is characterized by relatively large lakes on Canadian Shield topography. This area includes Voyageurs National Park. Lakes include Crane, Kabetogama, Namakan, Rainy and Vermilion.

The Lake of the Woods portion of the Basin is characterized by extensive wetlands located on the old Glacial Lake Agassiz lake bed and Lake of the Woods.

The Basin is made up of eight watersheds partially or wholly within the United States. These watersheds are: [Rainy River Headwaters](#), [Vermilion River](#), [Rainy River/Rainy Lake](#), [Lower Rainy River](#), [Little Fork River](#), [Big Fork River](#), [Rapid River](#), and [Lake of the Woods](#).

The Red Lake Band of Chippewa (Miskwaagamiiwi-zaaga'igan) own many acres in the Rainy Basin which are spread out from the Northwest Angle to southern Koochiching County. Bois Forte Band of Chippewa own three sectors, Nett Lake (*Asabiikone-zaaga'igan*), Vermilion (*Onamani-zaaga'igan*), and Deer Creek (*Waawaashkeshi-ziibiins*). Both are independent tribal nations located in the Rainy Basin. Both Bands have active water quality programming and work with the EPA and the MPCA in water quality matters.

In addition, other Bands not located in the Basin, have hunting, fishing, and gathering rights on off-reservation lands located within the Rainy Basin.

For more information about their water quality program, please contact the Bands at:

Bois Forte Band of Chippewa, Ecological Resources Program, 218-757-3261 Extension 1305 or cholm@boisforte-nsn.gov

Red Lake Band of Chippewa, Red Lake DNR, 218-679-3959, or rldnr@redlakenation.org

Newly awarded projects in the Rainy River Basin

There are no newly awarded projects in the Rainy River Basin in 2023.

Completed projects in the Rainy River Basin

There were no completed projects in the Rainy River Basin in 2023.

Active projects in the Rainy River Basin

There is one project that is currently under way in the basin are described in Table 13. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There is currently \$1,110,500 of CWP loan funds invested in the Rainy River Basin.

Table 13. Active projects in the Rainy River Basins

Project name	CLWSD management and Expansion program
Project sponsor	Crane Lake Water & Sanitary District
FY Awarded	2020
Project timeframe	March 2020 to March 2023
Funding type	CWP Loan
Funding	\$1,110,500.00
Match	\$-
HUC code	9030003
Watershed	Rainy-Lake of the Woods
Project goal	Providing an alternative, reasonable source of funding to assist CLWSD property owners with replacement or upgrade of septic systems.
BMPs installed to date	5 ISTS upgrades
Estimated reductions to date (eLINK)	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD ₅ : TBD E. coli: TBD

Red River Basin

The Red River of the North Basin encompasses a total area of 45,000 square miles, of which 41% of the total drainage area is in Minnesota. The remaining portion of the basin occupies substantial portions of North Dakota, southern Manitoba and a small portion of northeastern South Dakota to the north and west. The Minnesota portion of the basin is bound by the Minnesota River Basin to the south, and the Rainy and Upper Mississippi River Basins to the east. The Red River flows to the north, feeding into Lake Winnipeg in Manitoba and ultimately to the Hudson Bay.

The Red River Valley is one of the most productive agricultural areas of the world. While extensive human created and modified drainage systems have resulted in extremely rich agricultural areas, portions of the basin still support the ecologically abundant prairie-pothole region. Five National Wildlife Refuges, eight state parks, and many acres of federal and state wildlife management areas are located within the Basin. The Upper and Lower Red Lakes, two of the largest lakes in Minnesota, are located in the upper reaches of the Red River Basin. Flooding is a major concern for residents in the basin because frequent floods in the relatively wide and flat Red River Valley impact urban and rural infrastructure and agricultural production.

The Minnesota portion of the Red River Basin covers the entirety of 9 Minnesota counties and portions of 12 additional counties. Several moderate to small urban centers are located along the Red River main stem and tributaries in Minnesota, including Crookston, Thief River Falls, Detroit Lakes, Roseau, and Fergus Falls, as well as the North Dakota and Minnesota border communities of Wahpeton-Breckenridge, Fargo-Moorhead and Grand Forks-East Grand Forks.

The headwaters of the Red River of the North is the confluence of the Bois de Sioux and Otter Tail rivers within the city of Breckenridge, along the North Dakota – South Dakota boarder. The Minnesota portion of the Red River Valley is approximately 16,500 square miles, incredibly flat, and characterized by poorly drained, fine silt and clay left behind by Glacial Lake Agassiz. The beach ridges to the east of the valley are the remnants of the Glacial Lake Agassiz shoreline and are characterized by sandy, coarse-textured deposits and disconnected aquifers. The beach ridges are where the northern Minnesota Glacial Lakes area is located and includes lakes from around Fergus Falls up through Detroit Lakes and to Upper and Lower Red Lakes.

The Basin is made up of 17 watersheds partially or wholly within the United States. These watersheds are: [Upper Red River of the North](#), [Bois de Sioux River](#), [Mustinka River](#), [Otter Tail River](#), [Buffalo River](#), [Red River of the North - Marsh River](#), [Wild Rice River](#), [Clearwater River](#), [Red River of the North - Sand Hill River](#), [Upper and Lower Red Lakes](#), [Thief River](#), [Red Lake River](#), [Red River of the North - Grand Marais Creek](#), [Snake River – Red River Basin](#), [Lower Red River of the North - Tamarac River](#), [Two Rivers](#), and [Roseau River](#). Assessment of 16 of these watersheds is complete with the one remaining in progress.

Common water quality issues found during these assessments include: cloudy water caused by too much sediment and very fine, natural local soils; unsafe swimming conditions due to algae blooms in lakes caused by excessive nutrients and due to high bacteria levels in streams caused by humans, livestock, and wildlife; and low dissolved oxygen and degraded fish and macroinvertebrate communities caused by degraded natural habitat, lack of connectivity, and low flow issues in modified drainage systems.

The Red Lake Band of Chippewa Ojibwe and White Earth Band of Ojibwe are independent tribal nations located in the Red River Basin. Both Bands have tribal lands in the Basin that is outside of their reservation boundaries.

Red Lake Band of Chippewa Ojibwe, Red Lake DNR, 218-679-3959, or rldnr@redlakenation.org

White Earth Band of Ojibwe, White Earth Natural Resources Division, 218-935-2488, or monica.headstrom@whiteearth-nsn.gov

Newly awarded projects in the Red River Basin

There were no new projects in the Red River Basin in 2023.

Completed projects in the Red River Basin

There were no completed projects in the Red River Basin in 2023.

Active projects in the Red River Basin

There are three projects that is currently under way in the basin are described in Table 14. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There is currently \$1,182,458 in Section 319 funds invested, with a commitment of \$793,515 of local and state match.

Table 14. Active project in the Red River Basin

Project name	Upper Buffalo River Sediment Reduction	Red Lake River Targeted Watershed Grant Phase 1	Whiskey Creek Watershed Restoration
Sponsor	Buffalo-Red River WD	Red Lake Watershed District	Buffalo-Red River Watershed District
FY Awarded	2018	2020	2020
Project timeframe	March 2019 to September 2022	December 2020 to August 2024	December 2020 to August 2024
Funding type	Section 319	Section 319	Section 319
Funding	\$613,908.00	\$284,275.00	\$284,275.00
Match	\$412,087.00	\$189,289.00	\$192,139.00
HUC code	09020106	9020303	9020104
Watershed	Buffalo River	Red Lake	Buffalo-Red River
Project goal	Provide civic engagement (outreach and education) to landowners in the upper Buffalo River watershed resulting in BMP project implementation.	Restore impaired waters within priority management areas through focused reduction of sediment and E. coli loading from critical loading areas.	To improve habitat within the Whiskey Creek watershed by completing 16 miles of stream restoration via the construction of a two-stage ditch. In addition, to reduce sediment and phosphorus loading to Whiskey Creek.
BMPs installed to date	191.4 acres Cover Crop 2.3 acres Critical Area Planting 2 Grade Stabilization Structures 2,540 LF Grassed Waterway 15,634 Access Control 1 Access Road 50 WASCOBs	200 Grade Stabilization Structures 1,050 LF Stream Channel Stabilization	39 Grade Stabilization Structure 40,660 LF Streambank and Shoreline Protection
Reduction to date (eLINK)	Phosphorus: 3,061.68 lbs/yr Sediment: 2,419.39 t/yr Soil Loss: 2,675.95 t/yr Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 10.52 lbs/yr Sediment: 1,174.51 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA	Phosphorus: 1,314 lbs/yr Sediment: 2,172 t/yr Soil Loss: NA Nitrogen: NA BOD ₅ : NA E. coli: NA

Saint Croix River Basin

The Saint Croix River Basin extends between both Minnesota and Wisconsin (Figure 8). The Minnesota side of the Saint Croix River Basin covers approximately 3,500 square miles. The 9 projects currently awarded and underway in the Saint Croix Basin represents a total of \$4,041,632 of Section 319 and CWP Loan funds invested in the basin and \$1,184,840 of committed local and state matching funds.

The St. Croix River offers good water quality, excellent fisheries, and a thriving mussel population. But there are some problems, including phosphorus levels and resulting algae in two sections of the river, with more threats to water quality on the horizon. One of the first rivers in the United States to be designated as wild and scenic, with special protections, the St. Croix River now needs protective measures more than ever.

Figure 8. Saint Croix River Basin – Minnesota and Wisconsin



The St. Croix River is indeed a treasure, with good water quality, excellent fisheries, and a thriving mussel population. This river has a healthy ecosystem, in large part because of relatively little disturbance to its wetlands, floodplains and other features. Located near major metropolitan areas, the St. Croix offers exceptional recreation for hundreds of thousands of people every year. But that attraction also poses threats. Development—for housing, recreation and agriculture—means more runoff, and more runoff means more pollutants. One of the first rivers in the United States designated and protected under the Wild and Scenic Rivers Act, the St. Croix now needs protective measures more than ever.

Protection crucial: This river faces threats from changes in land use, both different agriculture practices and expanding urban development, so protection is crucial.

Popular: The St. Croix River is extremely popular because of its high water quality, exceptional recreation, and ease of public access.

Nutrient diet prescribed: Many partners are working to reduce phosphorus in Lake St. Croix to prevent algal blooms. The stretch of the river coming into the lake also needs reductions in nutrients.

Healthy biology: The fish and bugs are in good to excellent condition. And this river is one of the few of its size in the United States with a thriving native mussel population (MPCA, 2020).

The following HUC-8 watersheds are contained on the Minnesota side of the Saint Croix River Basin: [Kettle River](#), [Lower St. Croix River](#), [Snake River-St. Croix Basin](#), and [Upper St. Croix River](#).

Newly awarded projects in the Saint Croix River Basin

There are two newly awarded projects in the Saint Croix River Basin is shown in Table 15. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$612,671 of Section 319 funds for newly awarded in the Saint Croix Basin, with a commitment of \$408,804 in local match.

Table 15. Newly awarded projects in Saint Croix River Basin

Project name	Comfort Lake and Forest Lakes NKE P1	Brown's Creek & Long Lake NKE P1
Project sponsor	Comfort Lake-Forest Lake Watershed District	Brown's Creek Watershed District
FY Awarded	2023	2023
Project timeframe	October 2022-August 2026	January 2023-August 2025
Funding type	Section 319	Section 319
Funding	\$291,965	\$320,705.50
Match	\$195,000	\$213,804
HUC code	070300050403, 070300050401, 070300050402	70300050907
Watershed	Lower St. Croix	Lower St. Croix
Project goal	County Road 50 (CR50) Iron Enhanced Sand Filter (IESF): Forest Lake is one of the top recreational lakes in the metro area and the largest lake in Washington County, with a diverse and healthy fishery and three public accesses. Sunrise River/Highway 61 Wetland Enhancement: The purpose of this project is to implement, on a sub-regional scale, water quality improvements that will address concentrated and polluted flows generated from a ditch that discharges to the Sunrise River downstream of the Bixby Park project and the City of Forest Lake.	To address existing watershed impairments and stressors, and to decrease pollutant loading to waterbodies within the Browns Creek and Long Lake Watersheds (including an unnamed creek between Brown's Creek and Long Lake), as identified in the NKE plan.
BMPs planned	Iron Enhanced Sand Filter Wetland Enhancement	Restore 2,000 LF. of stream
Estimated reductions achieved	Phosphorus: 181 lbs/yr Sediment: 90 t/yr Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 15 lbs/yr Sediment: 15 t/yr Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA

Completed projects in the Saint Croix River Basin

There were no completed projects in the Saint Croix Basin in 2023.

Active projects in the Saint Croix River Basin

There are two projects that are currently under way in the basin are described in Table 16. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$1,055,635 of Section 319 and CWP loan funds invested in the Saint Croix River Basin, with a commitment to \$240,340 of local and state match.

Table 16. Active project in the Saint Croix River Basin

Project name	Marine on St. Croix Stormwater, phase 4	CLFLWD adaptive management projects, phase B1
Project sponsor	Carnelian-Marine-St. Croix WD	Comfort Lake-Forest Lake Watershed District
FY Awarded	2019	2022
Project timeframe	January 2020 to August 2023	January 2022 to December 2024
Funding type	Section 319	CWP Loan
Funding	\$55,635.00	\$1,000,000
Match	\$40,340.00	\$200,000
HUC code	7030005	7030005
Watershed	Lower St. Croix	Lower St. Croix
Project goal	The goal of this project is to reduce phosphorus loading and sedimentation to the St. Croix River and downstream to Lake St. Croix.	CLFLWD proposes to make progress toward each of its resource-specific measurable goals in its 2022-2031 Watershed Management Plan (floodplain, lakes, streams, wetlands, upland habitat, groundwater).
BMPs installed to date	1,354 sq ft Bioretention Basin	In progress
Reductions to date (eLINK)	Phosphorus: 1.90 lbs/yr Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD

Upper Mississippi River Basin

The Upper Mississippi River Basin (UMRB) within Minnesota stretches from the headwaters of the Mississippi River at Lake Itasca to Lock and Dam #2 near Hastings. It is the largest of Minnesota's 10 major river basins and is the only major drainage basin with all of its watersheds contained entirely within Minnesota's borders. The watershed drains 20,105 square miles and 510 miles of river corridor are located within the basin. There are dramatic changes in the river as it flows downstream from the headwaters to the metro area. The Northern part of the River and Basin is dominated by lakes and forests and the Southern part of the River and Basin is dominated by more agricultural and urban areas. These differences in land use dictate the type of water quality issues found across the basin, as well as the specific strategies that are needed to protect or restore the river.

Watersheds that comprise all the land that drains water towards the Upper Mississippi River are [Mississippi River – Headwaters](#), [Leech Lake River](#), [Crow Wing River](#), [Pine River](#), [Long Prairie River](#), [Mississippi River – Brainerd](#), [Mississippi River – Grand Rapids](#), [Redeye River](#), [Mississippi River- Sartell](#), [Mississippi River – St. Cloud](#), [Rum River](#), [Sauk River](#), [North Fork Crow River](#), [South Fork Crow River](#), and [Mississippi River – Twin Cities](#).

Newly awarded projects in the Upper Mississippi River Basin

There were three projects awarded in the Upper Mississippi River Basin in 2023, which are summarized in Table 17. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. These projects represent a total of \$1,362,671 of Section 319 grant and CWP loan investment, with a further commitment of \$408,644 in state and local matching funds.

Table 17. Newly awarded projects in the Upper Mississippi River Basin

Project name	Whitefish Lake HUC 10 NKE P1	Bluff and Oak Creeks NKE P1	Stearns County SSTS Upgrade Loan Fund
Project sponsor	Crow Wing SWCD	East Otter Tail SWCD	Stearns County
FY Awarded	2023	2023	2023
Project timeframe	August 2022-August 2025	February - 2023-August 2026	March 2023 - March 2026
Funding type	Section 319	Section 319	CWP Loan
Funding	\$320,705.50	\$291,965.00	\$750,000.00
Match	\$214,000	\$194,644	\$-
HUC code	0701010050401, 0701010050405, 070101050402, 0701010050403, 0701010050404, 070101050406	0701010702, 0701010703	7010204, 7010202, 7010201, 7010203
Watershed	Whitefish Chain of Lakes	Red Eye River	North Fork Crow River, Sauk River, Mississippi River Sartell, Mississippi River St. Cloud
Project goal	This NKE watershed-based plan was developed to further drill into the smaller watershed, provide specific activities and implementation needed to protect the lakes and restore the streams, identify critical loading areas and methods to address those, and provide the metrics, schedule, and milestones to measure progress and adapt to new information. This NKE plan will build on the data from the existing reports and projects. When this plan is fully executed, the trend toward impairment will be turned, and the reductions needed to reach water quality standards in the impaired streams will be met in 10 years. Reduce phosphorous loading by five percent from BMPs in residential and road areas. Whitefish Lake minor watershed, Whitefish, Big Trout, Island-Loon, Clamshell, and Pig Lakes are considered the lakes with the highest Phosphorus (P) sensitivity and the most economically essential lakes in the entire Pine River HUC8 Watershed.	The goal of this project is to implement bacteria management projects along Bluff and Oak Creeks with the intent to decrease E. coli concentration in these impaired streams. Bacteria management projects include bringing septic systems and feedlots into compliance; managing livestock waste through proper storage and application; prescribed grazing and fencing for pasture management and exclusion from surface waters; alternative water systems, heavy use exclusion/access controls to stabilize and protect creek banks and provide quality water sources for livestock; and the enhancement of riparian buffers.	Stearns County is engaged in a systematic effort to improve water quality by achieving the upgrade of outdated, failing, and noncompliant individual sewage treatment systems. Subsurface Soil Treatment Systems (SSTS) that are not installed or operated properly can adversely affect both groundwater and surface water quality. These resources can become impacted by failing SSTS contributing pathogens and nitrates to groundwater, as well as contributing pathogens, nutrients, dissolved organics, and solids to surface waters, degrading resource quality.
BMPs planned	Develop eight Forest Stewardship Plans for landowners with more than 20 acres of eligible forest land, approximately 320 acres. Enroll 740 acres into the Sustainable Forest Incentive Act (SFIA). Install 5,000 cubic feet of rain gardens (four projects). Install approximately 1,470 linear ft of shoreline/streambank restoration projects. Write three sustainable grazing plans on 300 acres of pastureland. Implement soil health practices on 550 acres following NRCS practice standards. Seal 12 unused residential wells.	Eight pit closures, 400 acres of prescribed grazing, 0.5 acres of heavy use exclusion, 1000 acres of manure management, four filter strips, 10 alternative watering structure, 1600 acres of soil health practices.	SSTS upgrade loans to property owners. Anticipation of 50 noncompliant system updates.
Estimated reductions	Phosphorus: 88.6 lbs/yr Sediment: 2.64 t/yr Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 12,574 lbs/yr Sediment: 260 t/yr Soil Loss: NA Nitrogen: 41,236 lbs/yr BOD5: NA E. coli: 65,359 billion MPN/yr	Phosphorus: 325 lbs/yr Sediment: 3 t/yr Soil Loss: NA Nitrogen: 525 lbs/yr BOD5: 11,025 BOD5/yr E. coli: 2.26E+15 MPN/yr

Completed projects in the Upper Mississippi River Basin

There were three projects completed in the Minnesota River Basin are shown in Table 19. The final amount of Section 319 and CWP Loan funds invested were \$609,722 with \$287,294 of state and local match. The projects addressed nutrient, sediment, and E. coli loading in the basin, with estimated reductions summarized in Table 18. Best management practices (BMPs) installed included both structural practices and education/outreach activities. BMPs installed included manure storage structure, streambank stabilization, vegetated buffers, limestone filters, and sediment dredging.

Table 18. Estimated reductions (eLINK) for completed projects in the Upper Mississippi River Basin

Pollutant	Reduction (unit)
Phosphorus	386.4 lbs/yr
Sediment (TSS)	NA
Soil Loss	NA
Nitrogen	256.2 lbs/yr
BOD ₅	3,249 lbs/yr
E. coli	1.25E+16 cfu/yr

Table 19. Completed projects in Upper Mississippi River Basin

Project name	Sweeney Lake WQ Improvement Project	Partridge River E. coli Reduction	Mille Lacs County SSTS Upgrades
Project sponsor	Basset Creek Watershed Management Commission	Todd County SWCD	Mille Lacs County
FY Awarded	2019	2018	2020
Project timeframe	December 2019 to August 2023	March 2019 to August 2022	July 2020 to July 2023
Funding type	Section 319	Section 319	CWP Loan
Funding	\$330,000	\$79,722	\$200,000
Match	\$229,112	\$53,182	\$5,000
HUC code	07010206	07010106	07010207, 07030003
Watershed	Mississippi River-Twin Cities Watershed	Crow Wing River	Rum River, Snake River
Project goal	Reduce total phosphorus concentrations in Sweeney Lake to meet water quality standards	Address water quality concerns in lakes and streams in the Crow Wing River Watershed. Livestock BMPs and other practices.	Upgrade/replace approximately 15 SSTS
BMPs installed	Curly-leaf pondweed treatment A two-phased alum treatment 600 common carp were removed	8 manure pit actual closures	9 SSTS upgraded
Estimated reductions achieved (eLINK)	Phosphorus: 250 lbs/yr Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 56 lbs/yr Sediment: NA Soil Loss: NA Nitrogen: 24 lbs/yr BOD5: NA E. coli: 1.25e16 MPN/yr	Phosphorus: 80.4 lbs/y Sediment: NA Soil Loss: NA Nitrogen: 232.2 lbs/yr BOD5: 3,249 lbs/yr E. coli: NA Fecal Coliform: 5.54E+14cfu
Project highlights	The Sweeney Lake Water Quality Improvement Project implemented a suite of practices that, together with the end of year-round aeration, resulted in vastly improved water quality. A curly-leaf pondweed treatment in May 2020 removed approximately 5.6 acres of curly-leaf pondweed (CLP) in order to reduce the chances of significant CLP growth after the alum treatment. A two-phased alum treatment in 2020 and 2022 was completed to bind phosphorus in the lake sediments making them unavailable for spurring algae growth. Finally, a total of more than 600 common carp were removed from Sweeney Lake and Schaper Pond, immediately upstream of the lake dropping the carp biomass to 68 kg/ha in Sweeney Lake 75 kg/ha in Schaper Pond.	This project brought forth several partner highlights. Todd SWCD partnered with the MPCA (providing 60% cost share), the Minnesota Board of Soil and Water Resources (providing 15% cost-share from a 2020 Clan Water Fund), landowners, contractors, and a local cafe called "Granny's" where the Kick-off event was held. After the kick-off event in which 10 targeted participants were present, a landowner by the name of Linn Smith and a local contractor were the primary unsolicited champions for this grant, explaining the water quality and safety benefits of pit closure to landowners within the sub- watershed. This resulted in the closure of eight targeted manure pits in riparian areas. In 2020, Todd SWCD applied for and received Phase Two of this grant which included manure pit closures and additional livestock access controls such as exclusion fencing, specified livestock crossing areas, as well as feedlot runoff controls, diversions and stacking slabs. At this same time, Todd SWCD applied for the match grant mentioned above from BWSR Clean Water Funds. In 2022, the Counties within the Crow Wing River Watershed applied for and received funding for the Crow Wing River Watershed One Watershed, One Plan Planning Grant from BWSR. The work done by the Phase One and Phase Two MPCA 319 grants received by Todd SWCD added valuable landowner information, geographical data and also spear headed the development of good working relationships for work to be done the work in the upcoming 1 W1 P Watershed Based Implementation Funding work plan.	Of the nine systems upgraded over the course of the program, all were located in the Mille Lacs Lake, Rum River, or West Branch of the Rum River watersheds. The upgrading of these systems no doubt had a positive impact on each of these water bodies.
Partnerships	City of Golden Valley, Sweeney Lake Homeowners Association	BWSR, Volunteer Local Citizen outreach, Granny's Café, Eagle Bend, MPCA	Landowners

Active projects in the Upper Mississippi River Basin

There are 18 projects that are currently under way in the basin are described in Table 20. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$7,223,191 of Section 319 and CWP loan funds invested in the Upper Mississippi River Basin, with a commitment to \$2,684,019 of local and state match.

Table 20. Active project in the Upper Mississippi River Basin

Project name	Meeker County SSTS Program	H2O (HOPP) Water Preservation Project	Todd County SSTS Project	VLAWMO Bacteria, Sediment, & Nutrient Reduction Project	Crystal Lake Management Plan
Project sponsor	Meeker County	City of Mounds View	Todd County	Vadnais Area Lakes Water Management Organization	Shingle Creek Water Management Commission
FY Awarded	2020	2020	2020	2019	2019
Project timeframe	October 2019 to October 2022	January 2020 to January 2023	March 2020 to March 2023	November 2019 to August 2023	January 2020 to August 2023
Funding type	CWP Loan	CWP Loan	CWP Loan	Section 319	Section 319
Funding	\$275,000.00	\$2,000,000.00	\$450,000.00	\$302,679.00	\$216,066.00
Match	\$-	\$-	\$-	\$601,447.00	\$154,440.00
HUC code	07010204, 07010205	7010206	07010107, 07010106, 07010108, 07010202, 07010104, 07010201	07010206	07010206
Watershed	NF Crow, SF Crow	Mississippi River-Twin Cities Watershed	Redeye, Crow Wing, Long Prairie, Sauk, Miss-Brainerd, Miss-Sartel	Mississippi River-Twin Cities Watershed	Mississippi River-Twin Cities Watershed
Project goal	Replace/upgrade approximately 30 SSTS.	Elimination of sanitary sewer discharge to groundwater via lateral pipe repair. Reduction in chloride discharge to sanitary and/or storm water system via replacement of residential water softeners.	Replace/upgrade approximately 55 SSTS.	Install suite of BMPs to address bacteria impairment, provide increased stormwater storage, and capture sediment in the Lambert Lake area of Lambert Creek.	Improve the water quality of Crystal Lake through the reduction of phosphorus levels, removal of carp and possible treatment for aquatic invasive species.
BMPs installed to date	In progress	In progress	In progress	2,020 LF Storm Water Retention Basins	30 acres Chemical Treatment
Reductions to date (eLINK)	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: 204.90 lbs/y Sediment: 2.26 t/y Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: 77 lbs/y Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA

Table 20 continued. Active project in the Upper Mississippi River Basin

Project name	Lake Carlos Watershed Improvement Project	Partridge River E. coli Reduction, Phase II	Lake Monongalia Stormwater Projects Importance	Green Lake NKE Implementation Phase 1
Project sponsor	Douglas SWCD	Todd SWCD	Middle Fork Crow River WD	Isanti SWCD
FY Awarded	2019	2019	2019	2020
Project timeframe	January 2020 to August 2023	March 2020 to August 2023	October 2018 to October 2021	October 2020 to August 2024
Funding type	Section 319	Section 319	CWP Loan	Section 319
Funding	\$300,000.00	\$221,610.00	\$275,000.00	\$284,275.00
Match	\$200,000.00	\$148,740.00	\$-	\$185,296.00
HUC code	07010108	07010106	7010204	07010207
Watershed	Long Prairie River Watershed	Crow Wing River	North Fork Crow	Rum River
Project goal	Implement BMPs on actively eroding project areas of the Long Prairie River Watershed to address nutrient rich sediment to surface waters through field erosion, feedlot runoff, storm water, and stream erosion.	Restore water quality in the Partridge River, Egly Creek, and its associated tributaries to the EPA safety standard of 126 org/100ml through high - medium flow regimes to protect the recreational value of the Crow Wing River.	Installation of these projects will result in a cost-effective pollutant reduction from City of New London runoff to various nearby water resources, and downstream drinking water supply of Minneapolis and St. Paul.	Implement prioritized and targeted Best Management Practices (BMPs) and strategic outreach in critical areas to reduce nonpoint sources of phosphorus to Green Lake.
BMPs installed to date	In progress	8 Closure of Waste Impoundments	In progress	342 acres Cover Crop 4570 sq ft Critical Area Planting 987 LF Streambank and Shoreline Protection 108 sq ft Bioretention Basin
Reductions to date (eLINK)	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: 7 lbs/y Sediment: t/y Soil Loss: NA Nitrogen: 6 lbs/y BOD5: NA E. coli: 3.04E+16 CFU	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: 37.72 lbs/yr Sediment: 13.21 t/yr Soil Loss: 2.63 t/yr Nitrogen: NA BOD5: NA E. coli: NA

Table 20 continued. Active project in the Upper Mississippi River Basin

Project name	Lake Allie ESSD Wastewater Collection System Project	Wright County Septic System Low Interest Loan Project	Horseshoe, Island and Minnewawa Lakes and Tamarak River NKE P1	Implementation of the Como Lake Management Plan and Nine Key Elements Plan Phase 1
Project sponsor	Renville County	Wright County	Aikin County	Capitol Region WD
FY Awarded	2021	2021	2022	2022
Project timeframe	November 2020 to November 2023	August 2020 to August 2023	October 2021 to August 2025	October 2021 to August 2025
Funding type	CWP Loan	CWP Loan	Section 319	Section 319
Funding	\$700,000.00	\$500,000.00	\$320,705.50	\$354,456.00
Match	\$-	\$-	\$220,246.88	\$290,240.00
HUC code	7010205	07010204, 07010203	0701010305, 0701010306	070102060802
Watershed	South Fork Crow River	North Fork Crow River and Mississippi River-St. Cloud	Mississippi River - Grand Rapids	Mississippi River-Twin Cities Watershed
Project goal	The goal of the Lake Allie ESSD Wastewater Collection System Loan Project is to ensure continued surface and ground water quality protection by replacing an aging centralized sewage treatment system.	Replace/upgrade failing or noncompliant SSTs in Wright County	This project is the first implementation project from the Tamarack River, Horseshoe, Island, and Minnewawa Lakes Subwatershed Nine Element Plan This project works towards removing these impairments by reducing phosphorous and bacteria, focusing on three project areas: stormwater, lakeshore, farm and forestry best management practices (BMPs). Cost-share programs will be used to install BMPs that will result in a reduction of 48.9 lbs of phosphorous and 3,852 billion most probable number (MPN)/org/year.	The five overarching management goals for Como Lake and its watershed include: Goal 1: Como Lake will be managed as an ecologically healthy, shallow lake. Goal 2: Maintain healthy shoreline areas that can support a variety of wildlife and contribute to the ecological health of Como Lake. Goal 3: Maintain a variety of year-round recreational opportunities that are appropriate for a shallow urban lake. Goal 4: Achieve strong sustained community engagement and stewardship to improve and protect Como Lake. Goal 5: Utilize the best science, partnerships, and resources to ensure successful implementation of the CLMP over the life of the plan (20 years).
BMPs installed to date	Treatment system upgrade	38 SSTs upgrades	In progress	In progress
Reductions to date (eLINK)	Phosphorus: NA Sediment: 13,140 mg/L/yr Soil Loss: NA Nitrogen: 120.45 lbs/yr BOD5: 4,792.45 lbs/yr E. coli: 1.8 MPN/100 mg/L	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD Fecal Coliform: TBD	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA

Table 20 continued. Active project in the Upper Mississippi River Basin

Project name	Coon and Sand Creeks Watershed NKE P1	Twelve Mile Creek Watershed NKE P1	Whitefish Lake HUC 10 NKE P1	Coon and Sand Creeks Special Project Pet Waste, NKE1-B	Wilkinson, Birch, and Tamarack Lakes NKE P1
Project sponsor	Coon Creek WD	Wright SWCD	Crow Wing SWCD	Coon Creek WD	Vadnais Lakes Area WMO
FY Awarded	2022	2022	2022	2022	2022
Project timeframe	January 2022 to September 2025	December 2021 to August 2025	August 2022 to August 2025	January 2022 to September 2025	February 2022 to August 2025
Funding type	Section 319	Section 319	Section 319	Section 319	Section 319
Funding	\$320,705.50	\$320,705.50	\$320,705.50	\$41,759.00	\$320,705.50
Match	\$213,804.50	\$214,000.00	\$214,000.00	\$28,000.00	\$213,804.00
HUC code	070102060203, 070102060201, 070102060202	070102040605	070101050401, 070101050402, 070101050403, 070101050404, 070101050405	070102060203, 070102060201, 070102060202	07010206
Watershed	Mississippi River-Twin Cities Watershed	North Fork Crow River	Mississippi River - Brainerd	Mississippi River-Twin Cities Watershed	Mississippi River-Twin Cities Watershed
Project goal	Address the primary stressors contributing to aquatic life impairments in Sand and Coon Creeks by improving stream habitat connectivity and reducing sediment and phosphorus loading attributable to streambank erosion.	The project is Phase 1 in the implementation of the Twelve Mile Creek Watershed Nine Key Element Plan (Plan) to restore and protect the water quality of the lakes and streams in the watershed. Project activities will focus on the critical areas described in the Plan. The critical areas include areas that export the highest amount of sediment and total phosphorus as modeled by the Prioritize, Target and Measure Application (PTMApp). Anticipated water quality benefits include reducing phosphorus, total suspended solids, and E. coli loadings.	Protect and enhance forest cover, priority protection lakes, and surficial sand aquifers by promoting 75 percent land protection in the Whitefish Lake minor watershed, which has been determined to be a minor priority watershed in the 1W1P.	The CCWD will install and operate 18 dog waste disposal stations located along trail corridors adjacent to public waterways in the Sand Creek Subwatershed in Anoka County, Minnesota to reduce E. coli and total phosphorus (TP) loading by an estimated 126,918 billion organisms and 122 pounds per year, respectively.	Restore water quality as part of Phase I of the Wilkinson Lake Stormwater Spine, as identified in the Wilkinson, Birch, and Tamarack Lakes Nine Key Element document.
BMPs installed to date	In progress	In progress	In progress	In progress	In progress
Reductions to date (eLINK)	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA	Phosphorus: NA Sediment: NA Soil Loss: NA Nitrogen: NA BOD5: NA E. coli: NA

Cedar River Basin

The Cedar River Basin lies in the western portion of Southeast Minnesota. Approximately 1,000 square miles cover Minnesota, but most of this Basin is in Iowa. In Minnesota, the Basin includes the following HUC-8 watersheds: [Cedar River](#), [Upper Wapsipinicon River](#), [Shell Rock River](#) and [Winnebago River](#). Agriculture dominates the land use of the Cedar River Basin. Row crop and livestock production play a large role in the watershed. Many of the water quality projects implemented in this Basin work to reduce impacts from agriculture, including sediment, nitrogen and E. coli reduction efforts.

Newly awarded projects in the Cedar River Basin

There were no newly awarded projects in the Cedar River Basin in 2023.

Completed projects in the Cedar River Basin

There were no completed projects in the Cedar River Basin in 2023.

Active projects in the Cedar River Basin

There is one project that are currently under way described in Table 21. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$284,275 of Section 319 funds invested, with a commitment of \$297,780 of local and state match.

Table 21. Active projects in the Cedar River Basin

Project name	Dobbins Creek Watershed Project Phase 1
Project sponsor	Cedar River Watershed District
FY Awarded	2020
Project timeframe	December 2020 to August 2024
Funding type	Section 319
Funding	\$284,275.00
Match	\$297,780.00
HUC code	7080201
Watershed	Cedar River
Project goal	The goal is to implement best management practices in the upper watershed, capital improvement projects, accelerate bacteria treatment through SSTS improvements, implement 184 acres of Soil Health Practices, track performance and inventory landuse management and soil health BMPs, establish modeling estimate of N, P, Q, and sediment reduction benefits of priority project sites.
BMPs installed to date	1 Grade Stabilization Structure 1 Grass Waterway
Reductions to date (eLINK)	Phosphorus: 31 lbs/yr Sediment: 37 T/yr Soil Loss: NA Nitrogen: 375 lbs/yr BOD5: NA E. coli: NA

Projects spanning multiple basins

In many cases, political boundaries do not follow the natural watershed boundaries. In cases like these, often a political entity, such as a county, will develop a project within their political borders that span multiple basins. In other cases, there are projects that have a statewide impact and will benefit the entire state. Since 2016, there has been an investment of \$9,136,875 of Section 319 funds and Clean Water Partnership Loan funds. Local partners have invested an additional \$30,000 of state and local match dollars to these projects.

Newly awarded projects in multiple basins

There were no newly awarded projects in multiple basin in 2023.

Completed projects in multiple basins

There were two projects completed in the Multiple Basin shown in Table 22. The final amount of CWP Loan funds invested was \$1,432,572 with \$30,000 of state and local match. The projects addressed nutrient and sediment loading.

Table 22. Completed projects spanning multiple basins

Project name	Lincoln County SSTS Project	Cottonwood County SSTS Low Interest Loan Project
Project sponsor	Lincoln county	Cottonwood County
FY Awarded	2019	2019
Project timeframe	June 2019 to June 2023	May 2019 to May 2023
Funding type	CWP Loan	CWP Loan
Funding amount	\$500,000	\$932,572
Match amount	\$30,000	\$-
HUC code	07020003, 10170202, 10170203, 07020004, 07020006	07100001, 07020010, 07020008, 07020007, 07020009
Watershed	Lac qui Parle, Minnesota - Yellow Medicine, Redwood, Upper Big Sioux, Lower Big Sioux	Mississippi River-Twin Cities Watershed
Project goal	Provide loan funds to upgrade subsurface sewage treatment systems (SSTS) to reduce multiple pollutants, including bacteria, from reaching groundwater and the identified waterbodies. Installation of conforming sewage treatment systems will assist greatly in protection of unimpaired waterbodies while restoring multiple reaches already impaired for bacteria.	Replace 72 septic systems throughout Cottonwood County over the next three years.
BMPs installed	Implemented 43 residential SSTS upgrades	Replaced 63 failing septic systems
Estimated reductions achieved (eLINK)	Phosphorus: 272 lbs/yr Sediment: 3,253 t/yr Soil Loss: NA Nitrogen: 829 lbs/y BOD5: 7,699 lbs/yr E. coli: 41.15E+13 CFU	Phosphorus: 530 lbs/yr Sediment: 10,563 t/yr Soil Loss: NA Nitrogen: 1,613 lbs/y BOD5: 19,123 lbs/yr E. coli: 3.65E+15 CFU
Project highlights	This project implemented 43 residential SSTS upgrades. One business upgrade. One improvement to a small community system. Upgrade of noncompliant SSTS such as this loan project, are identified in the Lincoln County Water Plan. This project has helped the County move closer to accomplishing the objectives and goals of their Plan.	The Low Interest Loan Project ran from May 2019 to May 2023, with all homeowners in the county being eligible for the program to replace a noncomplying septic system. Cottonwood County and the Cottonwood SWCD worked together to provide this service to the residents and notified septic contractors of our loan availability. The county will continue to provide low interest loans to replace noncomplying septic systems using other loan funds.
Partnerships	Lincoln County, Landowners, MPCA	Cottonwood County, Cottonwood SWCD, SSTS Contractors

Active projects in multiple basins

There are six projects that are currently under way described in Table 23. The table describes the funding source and amount, the expected state and local match, the HUC-8 watershed, and the goal of the project. There are currently \$ 6,689,535 of CWP loan funds invested.

Table 23. Active projects spanning multiple basins

Project name	McLeod County SSTS Restoration	Itasca County SSTS Loan Program	Otter Tail County SSTS Loan	Pine County SSTS Upgrades	Renville County SSTS Loan Program	Kandiyohi County SSTS Upgrades
Project sponsor	McLeod County	Itasca County	Otter Tail County	Pine County	Renville County	Kandiyohi County
FY Awarded	2019	2020	2020	2020	2020	2022
Project timeframe	July 2019 to July 2022	December 2019 to December 2022	April 2020 to April 2023	June 2020 to June 2023	May 2020 to May 2023	June 2022 to June 2025
Funding type	CWP Loan	CWP Loan	CWP Loan	CWP Loan	CWP Loan	CWP Loan
Funding	\$1,200,000.00	\$500,000.00	\$1,849,712	\$900,000.00	\$900,000.00	\$1,000,000
Match	\$-	\$-	\$-	\$-	\$-	\$-
HUC code	07010205, 07010204, 07020012	07010101, 07010103, 09030006, 09030005, 09020302, 04010201	09020103, 07010107	07030001, 07030005, 07030004, 07030003, 04010301	07020012, 07020007, 07020004, 07010205	07010204, 07010205, 07020005, 07020004
Watershed	South Fork Crow, North Fork Crow, Lower Minnesota	Mississippi -Headwaters, Mississippi-Grand Rapids, St. Louis, Little Fork, Big Fork, Upper/Lower Red Lake	Otter Tail, Redeye	Upper St. Croix, Lower St. Croix, Snake, Kettle, Nemadji	Lower Minnesota, Minnesota-Mankato, Minnesota - Yellow Medicine, South Fork Crow	North Fork Crow River, South Fork Crow River, Chippewa River, Minnesota River (Yellow Medicine River)
Project goal	Improve water quality and environmental degradation through financial assistance in replacing failing septic systems in McLeod County. Environmental benefits include proper treatment and disposal of septage that include phosphorus, sediment and nitrogen that have a negative impact on both ground and surface water.	Protect, enhance, and restore water quality in Itasca County by establishing a loan fund, which will encourage a faster rate of septic system replacement on properties throughout the county.	Provide loans to homeowners and commercial operators to replace noncompliant septic systems. The letters that require replacement of SSTS will promote the use of this loan program to homeowners and commercial property owners.	Replacement of noncompliant septic systems in Pine County to protect and improve public health and the water quality of the County’s five major watersheds.	To achieve water quality protection and restoration by providing financial assistance for property owners to upgrade noncompliant sewage treatment systems.	Upgrading substandard sewage treatment systems with loan dollars enables citizens within the community to have an active role in water quality improvement in their neighborhood.
BMPs installed to date	8 SSTS upgrades	In Progress	107 Residential SSTS upgrades 6 Commercial upgrades	13 SSTS upgrades	85 SSTS upgrades	36 SSTS upgrades
Estimated reduction to date (eLINK)	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: 1,507 lbs/yr Sediment: 15.3 t/yr Soil Loss: NA Nitrogen: 4,946 lbs/yr BOD5: lbs/yr E. coli: 11 x10 ¹⁵ cfu	Phosphorus: TBD Sediment: TBD Soil Loss: TBD Nitrogen: TBD BOD5: TBD E. coli: TBD	Phosphorus: 475 lbs/yr Sediment: 6,523 mg/L Soil Loss: NA Nitrogen: 1,602 lbs/yr BOD5: 11,811 lbs/yr E. coli: 3.2786E+15 CFU	Phosphorus: 241 lbs/yr Sediment: 2.15 t/yr Soil Loss: NA Nitrogen: 744 lbs/yr BOD5: NA E. coli: NA

Appendix A. Goals, milestones and strategies

Minnesota has long tradition of addressing water quality issues within the state. Throughout this time many plans, initiatives and strategies were developed to address concerns throughout the state. In 2006 the Minnesota Legislature determined that: “there is a close link between protecting, enhancing, and restoring the quality of Minnesota's groundwater and surface waters and the ability to develop the state's economy, enhance its quality of life, and protect its human and natural resources; and achieving the state's water quality goals will require long-term commitment and cooperation by all state and local agencies, and other public and private organizations and individuals, with responsibility and authority for water management, planning, and protection.”

Based on this information the Minnesota Legislature passed the Clean Water Legacy Act legislatively mandating a common effort to address water quality concerns in Minnesota. From this directive several high level efforts, such as the Minnesota Water Quality Framework and the Clean Water Roadmap were completed to guide water quality improvement efforts in Minnesota. These documents along with other statewide planning and strategy documents (such as the state Nutrient Reduction Strategy and the state water plan led by the Environmental Quality Board) provide the overall goals, strategies and milestones for this plan and are outlined below.

Guiding principle

The guiding principles of this plan follow the Minnesota Water Quality Framework principles:

- Protect, maintain, and restore the biological, chemical, and physical health of the state’s water resources.
- Provide resiliency to our ecosystems, our communities, and our economies.
- Increase our understanding of our state water balance and the processes and stressors affecting it to provide for improved decision making.
- Improve our capacity for water management that can adapt to new knowledge, changing biogeochemical systems, and long-term challenges.
- Encourage sustainable, conservation-minded land use practices.
- Recognize and honor our many uses of water, including recreational, cultural, and spiritual values.
- Preserve our water-rich heritage and ensure our future legacy as national and international water stewards.
- Provide for a lasting foundation to achieve and maintain sustainable water management.

Short term, long term, and overall goals

The Minnesota Clean Water Council has worked with stakeholders to develop overall goals for water quality in Minnesota. The overall goals listed below are applicable to this plan:

Drinking water is safe for everyone, everywhere in Minnesota.

Protect public water supplies.

Ensure private well users have safe water.

Groundwater is clean and available.

- Improve and protect groundwater quality.
- Ensure sustainable long-term trends in aquifer levels.
- Avoid adverse impacts to surface water features due to groundwater use.

Surface waters are swimmable and fishable.

Prevent and reduce pollution of surface waters.

- Maintain and improve the health of aquatic ecosystems.
- Protect and restore hydrologic systems.

Minnesotans value water and take actions to sustain and protect it.

- Build capacity of local communities to protect and sustain water resources.
- Encourage systems and approaches that support, protect, and improve water.
- Provide education and outreach to inform Minnesotans' water choices.
- Encourage citizen and community engagement on water issues.

Minnesota's Clean Water Roadmap establishes several long-term goals that are applicable for this plan:

Increase the percentage of Minnesota lakes with good water quality, as measured by acceptable Trophic State Index, from 62% to 70%.

Increase the percentage of Minnesota's rivers and streams with healthy fish communities, as measured by the Index of Biotic Integrity, from 60% to 67%.

Reduce nitrate levels in groundwater by 20%, which will decrease the percentage of wells exceeding the drinking water standard by 50% (in two vulnerable areas of the state).

The 2014 Minnesota Nutrient Reduction Strategy set short and long-term goals to assist in tracking Minnesota's statewide nutrient reduction progress and are applicable to this plan. Each major basin has numeric reduction goal for phosphorus and nitrogen.

[Five-year progress report | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us/pollution-control/five-year-progress-report)

Major basin	Short term goal 2014 to 2025	Long term goal 2025 to 2040
Mississippi River (Also includes Cedar, Des Moines, and Missouri Rivers)	12% reduction in phosphorus (33% reduced prior to 2014)	Achieve 45% total reduction from 1980-96 baseline and meet in-state lake and river water quality standards
	20% reduction in nitrogen	Achieve 45% total reduction from 1980-96 baseline
Red River (Lake Winnipeg Basin)	10% reduction in phosphorus	Achieve final reductions identified through joint efforts with Manitoba (about 50% from 1998 to 2001) a
	13% reduction in nitrogen	
Lake Superior	Maintain protection goals, no net increase from 1970s	
Groundwater/Source Water	Meet the goals of the 1989 Groundwater Protection Act	

Overall priorities

Three high-level state priorities that are identified for the use of nonpoint implementation money include:

Restore those impaired waters that are closest to meeting state water quality standards.

- Impaired waters that are within 10% of meeting water quality standards should be considered a priority for implementation.
- Protect those high-quality unimpaired waters at greatest risk of becoming impaired.
- High-quality unimpaired waters that are within 10% of becoming impaired and have a declining water quality trend should be considered a priority for implementation.

Restore and protect water resources for public use and public health, including drinking water.

These priorities of barely impaired, nearly impaired, and those that are a significant public use and public health, especially drinking water sources, are prioritized for funding, as described in the [Section 319 Small Watersheds Focus Programs Funding Priorities and Selection Criteria](#).

Strategies

High-level strategies are identified in the Minnesota Non-Point Funding Plan (NPFP) for the successful use of available funds in achieving the state's clean water goals. These same strategies are adopted in this plan, as the Minnesota NPFP was developed to provide state agencies with a coordinated, transparent and adaptive method to ensure that Clean Water Funds and other implementation funds are targeted to cost-effective actions with measurable results. The Minnesota NPFP does not include a single scoring system with weighted criteria. Instead, it allows state agencies the flexibility

to apply the NPFP priorities and criteria in ways that meet their strategic, legislative and funding source goals. Included with these strategies are this plan's milestone activities on how these strategies will be implemented for this plan.

Accelerate Watershed-scale Implementation

Watershed Scale Implementation will be most effective when allocation of monies for the highest-priority actions follows local government adoption of watershed-based local water plans.

- Milestone 1a – each year, up to ten small watersheds will be selected to participate in the Section 319 Small Watershed Focus Program. Up to 40 watersheds will be selected to participate in the program.

Measure – # of watersheds selected to participate in the Small Watershed Focus Program.

Group A: 10

Group B: 9

Group C: 10

Group D: 6

- Milestone 1b – provide assistance to each of the selected Small Watershed Focus Program recipients in the development of an EPA NKE watershed-based plan.

Measure – all selected watersheds have an EPA approved NKE watershed-based plan.

Group A: 10

Group B: 9

Group C: 2 complete, 8 in progress

Group D: 6 in progress

- Milestone 1c – provide administrative oversight of the Minnesota Section 319 Small Watershed Focus Program.

Measure – satisfactory review of administrative oversight.

Yes

- Milestone 1d – develop or update a Watershed Management Plan (in the seven county metro area) or a Comprehensive Watershed Management Plans also known as One Watershed, One Plan (1W1P).

Measure – # of completed and approved plans, or subsequently developed updated plans.

Metro:

- Approved Plans: 33 out of 33

<https://www.pca.state.mn.us/water/twin-cities-metropolitan-area-tcma-watersheds>

[Metro Watershed Management Plan | MN Board of Water, Soil Resources \(state.mn.us\)](#)

Greater MN

Approved Plans: 39 out of 80

[One Watershed, One Plan Participating Watersheds | MN Board of Water, Soil Resources \(state.mn.us\)](#)

Prioritize and target at the Watershed scale

Models and tools are useful for watershed prioritization and for identifying potential impacts to surface and groundwater. They are often capable of targeting which actions, locations, and management practices are most effective at addressing water quality goals and project objectives. Models and tools are used to project outcomes of specific actions, locations, and management practices to forecast measurable results. Using these models and tools together with the best available science can efficiently inform Minnesota's Water Quality Framework.

- Milestone 2a – Develop and maintain Hydrological Simulation Program – Fortran (HSPF) models or other more appropriate water quality simulation models for each of the 80 watersheds in Minnesota.

Measure – # of HUC-8 watersheds that have a completed and QA/QCed water quality simulation model.

Watersheds completed: 5

- Milestone 2b – extend time series and data of each watershed model once every five years ensuring latest water quality data is available.

Measure – # of completed water quality simulation model updated once every five years.

Watersheds completed: 6

Measure results at the Watershed scale

Similar to prioritizing and targeting, measuring results is best achieved at the watershed scale. Watershed-based local water plans capable of producing measurable results are essential to adaptive management and accountability to the public.

- Milestone 3a – support ongoing nutrient load monitoring through the Watershed Pollutant Load Monitoring Network (WPLMN) which occurs on every major river throughout the state.

Measure – # of WPLMN sites maintained.

Basin Sites: 23

Major Watershed Sites: 52

Subwatershed Sites: 125

Total: 200

[Watershed pollutant load monitoring | Minnesota Pollution Control Agency \(state.mn.us\)](#)

- Milestone 3b – support Minnesota’s Watershed Approach Intensive Watershed Monitoring (IWM) program which evaluates streams and lake water quality on a 10 year cycle of biological and chemical monitoring conducted in each of the 80 HUC-8 watersheds in Minnesota.

Measure - # of HUC-8 watersheds completing IWM each year.

Cycle 1: 80 out of 80 watersheds completed.

- Milestone 3c – support the Minnesota Citizen Monitoring Program (CMP) to allow dedicated citizen scientist and the MPCA to track the long-term health of Minnesota lakes and streams, in a collaborative approach, via regular summer water clarity monitoring.

Measure - # of volunteers participating in the CMP.

A total of 1,400CMP volunteers collected data during the most recent monitoring season.

[Citizen water monitoring | Minnesota Pollution Control Agency \(state.mn.us\)](#)

- Milestone 3d – provide input and assist in the development of the biennial Clean Water Fund Performance Report. This report provide a snapshot of how Clean Water Fund and other leveraged dollars are being spend and what progress has been made in achieving water quality goals.

Measure – Clean Water Fund Performance Report published in even numbered years.

[2020 Clean Water Fund Performance Report](#)

[Clean Water Fund Performance Reports | Minnesota's Legacy \(mn.gov\)](#)

- Milestone 3e – maintain and update the Healthier Watershed webpage which provides interactive and updated information on WRAPS and TMDL status, wastewater treatment plant progress, BMP implementation by watershed, and information on state, local and federal spending for clean water projects.

Measure – webpage Healthier watersheds: Tracking the actions taken | Minnesota Pollution Control Agency (state.mn.us) updated annually by July 1st.

Utilize science-based information

A key to developing prioritized implementation schedules for projects with targeted actions, and measuring results of these actions, is to incorporate the wealth of science-based information, summarized in WRAPS, TMDLs and other technical reports, and practice effectiveness research into local water planning and project development processes.

- Milestone 4a – Utilize Watershed Assessment Teams (WAT) and Professional Judgement Groups (PJG) in the water quality Assessment Process to determine if state waters are attaining water quality standards.

Measure - # of Assessment Processes completed each year.

Two assessment processes in FY 2022, Mississippi River Twin Cities and Crow Wing River watersheds.

- Milestone 4b – perform Stressor Identification (SID) in each of the 80 HUC-8 watersheds to identify stressors causing biological impairments of aquatic ecosystems through a weight of evidence approach and provide a structure for organizing the scientific evidence supporting the conclusion. A Stressor Identification report will be developed for each of the 80 HUC-8 watersheds.

Measure - # of SID reports/updates completed each year.

FY 2022: 2 reports

- Milestone 4c – perform Problem Investigation Monitoring to investigate specific problems or protection concerns to allow for the development of a management approach to protect or improve the resource.

Measure - # of sites monitored each year.

50 sites FY2022

- Milestone 4d – develop Watershed Restoration and Protection Strategy (WRAPS) reports which include major findings of the Monitoring and Assessment Report, Biological SID Report, HSPF modeling results, TMDL study information, and protection and implementation strategies for each HUC-8 watershed.

Measure - # of WRAPS reports, or subsequently WRAPS Update reports, developed yearly.

80 of 80 WRAPS approved. As of 6/16/2023

- Milestone 4e – develop TMDL studies in accordance with Minnesota’s TMDL Priority Framework document.

Measure - # of TMDLs approved by EPA each year.

TMDL FY 2022: 5

FY 2016-2021: 82

[Approved TMDLs and WRAPS \(state.mn.us\)](https://state.mn.us)

- Milestone 4f – develop Minnesota Department of Health Groundwater Restoration and Protection Strategies (GRAPS) reports for each watershed, which contain maps and data describing groundwater conditions in the watershed. The reports identify local groundwater concerns and outline strategies and programs to address them.

Measure - # of GRAPS developed each year.

8 complete GRAPS reports.

[Groundwater Restoration and Protection Strategies \(GRAPS\) \(state.mn.us\)](https://state.mn.us)

- Milestone 4g – develop Minnesota Department of Natural Resources Watershed Hydrology, Connectivity, and Geomorphology Assessment Reports for each watershed which analyzes the current and historical hydrology trends of the watershed, assesses the fluvial geomorphology and stability of rivers and streams within the system and investigates connectivity (i.e. longitudinal, lateral, and riparian).

Measure - # of Hydrology, Connectivity, and Geomorphology Assessment reports developed each year.

- Milestone 4h – update and revise Minnesota Nutrient Reduction Strategy (NRS). Report on progress on implementation activities and strategies, BMP adoption assessment, water quality outcomes and any recommended adjustments to the NRS implementation efforts.

Measure – NRS update completed in 2024.

[Nutrient reduction strategy | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us)

Build local capacity

The work of nonpoint implementation rests on the shoulders of local governments. As WRAPS proliferate and local water planning begins shifting to a watershed-based framework, success is dependent on highly capable local government staff to develop, prioritize, target, and implement projects at the local level.

- Milestone 5a – maintain, support and provide training for HSPF-Scenario Application Manager (HSPF-SAM) to aid local partners in the decision on the prioritization and placement of best management practices (BMPs) needed to achieve water quality goals.

Measure - # of Processing Application Tool for HSPF (PATH) interfaces maintained.

One PATH maintained

Measure - # of trainings HSPF-SAM held.

2 trainings during

- Milestone 5b – provide water quality technical knowledge assistance and information to local planning partners in the development or updates 1W1P. This assistance will include: providing water quality data, identification of stressors and pollutant sources, information on prioritizing and targeting critical areas for protection and restoration, and high-level strategies to achieve water quality goals.

Measure – # of completed and approved 1W1P or subsequently developed updated 1W1P.

Approved Plans: 39 out of 80

One Watershed, One Plan Participating Watersheds | MN Board of Water, Soil Resources (state.mn.us)

- Milestone 5c – provide Smart Salting training to increase awareness of chloride pollution and prevention.

Measure – cumulative # of people certified in Smart Salting.

Trained

Total 5955

[Smart Salting training | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us)

- Milestone 5d – Implement the Minnesota Clean Water Partnership loan program offering zero-interest loans to local units of government for implementing nonpoint-source best management practices and other activities that target the restoration and protection of water resources.

Measure – amount of money loaned to local units of government per year.

FY 2023: \$2,970,000.00

- Milestone 5e – Continue to direct funding resources for accelerated program management and local implementation of non-point pollution reduction activities.

Measure – amount of grant money awarded.

Section 319 FFY2023 \$2,919,650

[Show you're interested: Section 319 Small Watersheds Focus | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us)

Clean Water Funds 3,500,000 available for FY 2023

[Clean Water Partnership loan | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us)

[Clean Water Fund | Minnesota's Legacy \(mn.gov\)](https://mn.gov)

- Milestone 5f – maintain and update the Minnesota Stormwater Manual WIKI

Measure – continued update of manual. Updates can be tracked at [Recent changes - Minnesota Stormwater Manual \(state.mn.us\)](https://state.mn.us).

Last updated: 4/2/24

Maximize existing laws and regulations

Customary approaches to nonpoint pollution implementation include regulation as well as financial incentives and education. A key to developing effective Watershed Restoration and Protection Strategies is maximizing the effectiveness of existing laws and regulations.

- Milestone 6a – support and implement the 2015 Buffer Law (amended in 2016). The law establishes perennial vegetation buffers along rivers, streams, and public drainage ditches.

Measure - Percentage compliance statewide of Buffer Law.

Approximately 98% of parcels adjacent to Minnesota waters are compliant with the Buffer Law.

[Minnesota Buffer Law | MN Board of Water, Soil Resources \(state.mn.us\)](#)

[Where Can I Find Buffer Maps? | MN Board of Water, Soil Resources \(state.mn.us\)](#)

- Milestone 6b – support and implement the MDA Minnesota Nitrogen Fertilizer Management Plan and the Groundwater Protection Rule.

Measure – annual posting of Fall Nitrogen Restriction map.

[Fall Nitrogen Fertilizer Application Restrictions \(2021\) \(arcgis.com\)](#)

Measure – annual posting of Drinking Water Supply Management Area Mitigation Level map.

[Mitigation Level Determination | Minnesota Department of Agriculture \(state.mn.us\)](#)

- Milestone 6c – support and implement MPCA Feedlot rules on non-CAFO facilities

Measure - Number of high-risk feedlot inspections conducted annually.

[MPCA Feedlot Program overview](#) Updated January 2021

- Milestone 6d – support and implement the MPCA Subsurface Sewage Treatment System rules

Measure - Percentage of estimated SSTS compliant systems.

[SSTS Annual Report](#)

Total number of SSTS reported and construction permits issued in 2023

Total number of SSTS: 649,493

Construction permits: 10,856

Support innovative nonregulatory approaches

One of several keys to leveraging various implementation monies is to support the development of market-driven and reward-driven approaches.

- Milestone 7a – implement the Minnesota Agricultural Water Quality Certification Program (MAWQCP). The MAWQCP is a voluntary program that supports the implementation of conservation practices on a field-by field, whole-farm basis through its process of identifying and mitigating agricultural risks to water quality. Overall goal is the enrollment of one million acres.

Measure – cumulative # of acres enrolled.

Total Acres enrolled 1,000,000. 1,500 producers. As of 5/29/2024

[Minnesota Agricultural Water Quality Certification Program | Minnesota Department of Agriculture \(state.mn.us\)](https://state.mn.us/agriculture/mawqcp/)

- Milestone 7b. – support point/non-point water quality trading in a market-based approach for the protection and restoration of water resources that work in conjunction with existing voluntary, regulatory and financial assistance programs.

Measure – cumulative # of water quality trades completed.

10 Trades

[Water quality trades in Minnesota | Minnesota Pollution Control Agency \(state.mn.us\)](https://state.mn.us/pollution-control/water-quality-trading/)

- Milestone 7c. – support the MDA and University of Minnesota Forever Green Initiative which develops and promotes methods on incorporating perennial and winter annual crops into existing agricultural practices.

Measure - # of projects funded each biennium.

Projects funded 2020-2021: 13

2020-2021 Forever Green Projects | Minnesota Department of Agriculture (state.mn.us)

<https://www.forevergreen.umn.edu/>

Additional strategies to achieve successful non-point pollution reductions

Build partnerships to enhance a collaborative watershed approach to nonpoint water pollution.

- Milestone 8a – Support collaborative water quality policy development through the Clean Water Council with members from: farm organizations, business organizations, environmental organizations, Soil Water Conservation Districts, Watershed Districts, nonprofit organizations focused on water quality improvements, state agencies, county governments, city governments, township officers, tribal governments, statewide hunting organizations and statewide fishing organizations.

Measure – continued monthly meetings of the CWC and its Policy Committee.

Regular monthly meetings were held in FY 2023.

- Milestone 8b – strengthen and expand state agency collaboration through the Interagency Coordination Team with members from BWSR, DNR, Met Council, MDA, MDH, MPCA, PFA and EQB.

Measure – continued regular meetings of the ICT and its subteams.

Regular meetings were held in FY 2023.

In addition to the above referenced strategies and milestones, Minnesota’s NPS Program will also deploy a variety of Administrative measures to evaluate Minnesota’s NPS Program administration and management including:

Timeliness and quality of report submittals to EPA.

Timeliness of federal fund obligation with state program partners and sub-grantees.

Participation at all required meetings, conferences and other events outlined in the Programmatic Conditions section of Minnesota’s grant agreement with EPA.

Provide administrative oversight of the Minnesota Section 319 Small Watershed Focus Program.

Submittal of an annual Watershed Achievements Report highlighting the achievements of active and recently completed nonpoint source water quality projects.

Provide Section 319 grant program process into EPA’s Grants Reporting and Tracking System (GRTS) on a semiannual basis.

Develop individual nonpoint source water quality Success Stories.

Review and update the Minnesota Nonpoint Source Management Program plan at least once every five years.